SN5748

CLQ 9/30/97

OCT 10 '97

In Reply Refer To: MS 5232

Mr. Norm L. Winter
Tennessee Gas Pipeline Company
Post Office Box 2511
Houston, Texas 77252-2511

Dear Mr. Winter:

Your letter dated July 21, 1997, requests approval to relinquish in its entirety Right-of-Way Grant OCS-G 4291, associated with the following pipeline:

Pipeline Segment No.	Size (inches)	Length (feet)	Service	From	To
5748 (Right-of-Way OCS-G 4291)	16	1,609	Gas	Platform A Block 498 West Cameron Area Lease OCS-G 3520	A 30-inch SSTI Block 498 West Cameron Area Lease OCS-G 3520 Segment No. 5632

Pursuant to 30 CFR 250.150(b), the relinquishment of the right-of-way grant is hereby accepted effected July 30, 1997. Pursuant to 30 CFR 250.4(b), approval is hereby granted to abandon this pipeline, and in accordance with 30 CFR 250.159(c), the requirment that the pipeline be removed is hereby waived.

In the future, should it be determined that this abandoned pipeline constitutes a hazard to navigation or commercial fishing operations or unduly interferes with the other uses of the Outer Continental Shelf, Tennessee Gas Pipeline Company shall be required to remove it.

Sincerely,

(orig. sgd.) A. P. Alvarado

Donald C. Howard
Regional Supervisor
Field Operations

bcc: 1502-01 Segment No. 5748, ROW OCS-G 4291 (MS 5232)
1502-01 ROW OCS-G 4291 (Microfilm) (MS 5033)
MS 5421
MS 5232 (Carto)

LMonahan:amm:9/4/97:Tennesse.748

10/22/97

* wait to hear from Aldrich

LTGP 119A 1/97

TENNESSEE GAS PIPELINE
an El Paso Energy company

July 21, 1997

U.S. Department of the Interior
Minerals Management Service
Gulf of Mexico OCS Region
1201 Elmwood Park Boulevard
New Orleans, LA 70123-2394
Attention: Alex Alvarado

Re: Permanent Abandonment and Relinquishment of Pipeline Right of Way, OCS-G 4291, Seg. No. 5748, West Cameron Block 498-A Line

Dear Alex:

In accordance with Title 30 CFR Part 250, Subpart J, 250.156 and 250.164, Tennessee Gas Pipeline Company hereby requests approval to permanently abandon and relinquish approximately 0.30 miles of sixteen inch (16") pipeline in the West Cameron Area, Offshore Louisiana.

The temporary cessation of the above pipeline was approved on April 7, 1997. Tennessee Gas Pipeline Company hereby requests approval to relinquish the pipeline right of way associated with this abandonment in its entirety. TGP is requesting this permanent abandonment and relinquishment based on the fact that there is no future use for this pipeline. This line was abandoned as proposed in June 1997.

Please forward all documentation to K. J. Cheramie at Sugar Mill Point, 1115 Regal Row, Houma, LA 70360, (504)868-6785, ext. 217.

Sincerely,

Norm L. Winter
Agent and Attorney-in-Fact

MINERALS MANAGEMENT SERVICE
RECEIVED
JUL 30 1997
FIELD OPERATIONS
Gulf of Mexico OCS Region, New Orleans, LA

NLW/KJC:kjc

cc: M. Handley
P. Craft
P. Alexis
L. Rosales
File

SN 5748

4/1/97

APR 07 1997

In Reply Refer To: MS 5232

Mr. C. M. Billings
Tennessee Gas Pipeline Company
Sugar Mill Point, 1115 Regal Row
Houma, Louisiana 70360

Dear Mr. Billings:

Your letter dated March 17, 1997, requests approval for the modification of pipeline Right-of-Way OCS-G 4291, to allow for the temporary cessation of operation of the associated 16-inch pipeline, described as follows:

Pipeline Segment No.	Size (inches)	Length (feet)	Service	From	To
5748 (Right-of-Way OCS-G 4291)	16	1,609	Gas	Platform A Block 498 West Cameron Area Lease OCS-G 3520	A 30-inch SSTI Block 498 West Cameron Area Lease OCS-G 3520 Segment No. 5632

Pursuant to the authority granted by 30 CFR 250.150(b), your request is hereby approved with the following conditions:

1. The annual rental required by 30 CFR 250.159(c)(2) shall continue to be due and payable in December of each calendar year.

2. Tennessee Gas Pipeline Company, upon receipt of the necessary documentations which are required by the Federal Energy Regulatory Commission under Tennessee Gas Pipeline Company's blanket abandonment authorization, shall file an application to permanently abandon the subject pipeline and relinquish the right of way.

Additionally, your letter requests approval to cut, plug, and bury the ends of the pipeline 3 feet. Pursuant to 30 CFR 250.150(b), your request is hereby approved.

Sincerely,

(orig. sgd.) A. P. Alvarado

Donald C. Howard
Regional Supervisor
Field Operations

bcc: 1502-01 Segment No. 5748, ROW OCS-G 4291 (MS 5232)
1502-01 ROW OCS-G 4291 (Microfilm) (MS 5033)
MS 5232 Carto w/plat

LMonahan:amm:4/1/97:Tennesse.748

4/10/97

TENNESSEE
GAS PIPELINE
an El Paso Energy company

March 17, 1997

U.S. Department of the Interior
Minerals Management Service
Gulf of Mexico OCS Region
1201 Elmwood Park Boulevard
New Orleans, LA 70123-2394

Attention: Alex Alvarado

Re: Temporary abandonment of 16" natural gas pipeline, West Cameron Block 498-A Line, OCS-G 4291, Seg. No. 5748

Dear Alex:

In accordance with Title 30 CFR Part 250, Subpart J, 250.156, Tennessee Gas Pipeline Company hereby requests approval to temporarily abandon the above referenced pipeline in the West Cameron Area, Gulf of Mexico, Offshore Louisiana.

This pipeline extends from Coastal's West Cameron Block 498-A platform to a sub-sea tie-in with Tennessee Gas Pipeline Company's existing 30" pipeline in West Cameron Block 498. The procedure which will be used to abandon this facility is attached hereto.

Upon receipt of the necessary documentation, i.e., P & A reports, etc., which are required by FERC under TGP's blanket abandonment authorization, TGP will file to permanently abandon the above pipeline.

The line will be purged with seawater to remove any materials which might be harmful to the environment prior to abandonment.

Also, enclosed are three copies of Drawings which have been red-marked to show the proposed work, along with a copy of Coastal's letter requesting removal of the pipeline facilities.

If you should require any additional information regarding this matter, please call this office.

Sincerely,

B. J. Chaney, Supervisor Rights of
Way as Agent and Attorney-in-Fact

BJC/KJC:kjc

Enclosures

cc: M. O'Bryan
P. Craft
L. Rosales
P. Alexis
D. McCarter
File

ABANDONMENT PROCEDURE
WEST CAMERON 498-A

1. Locate, uncover and close sub sea valve 823X-2501 in West Cameron block 498.
   Open 2" bypass valves.
   X= 1,315,467
   Y= (-) 65,154

2. Install 16" poly pig in pig trap at Coastal Oil and Gas W.C. 498A platform.

3. Launch and run pig with high pressure water.
   (1,796 ft. of 16" OD x .375" WT Pipe = 17,035 gallons)

4. When pig reaches closed sub sea valve 823X-2501 pressure will spike.
   Close 2" bypass valves.

5. Bleed water pressure from line at W.C. 498 platform.

6. Unbolt flanges at station 0+16 (as shown on drawings).

7. Jet pipeline in upstream direction approx. 40 ft. to station 0+56. Cut pipeline at 0+56 and remove 40 ft. section with flange.

8. Install 16" foreman plug in end of pipeline to be abandoned. Ensure pipeline has 3 Ft. cover.

9. Install 16" blind flange at station 0+16 on flange previously unbolted in step 6.

10. At West Cameron 498A platform, cut 16" pipeline at base of riser at station 16+57 and remove ell (water depth 152 ft.). Remove ell to surface vessel.

11. Install 16" foreman plug in end of pipeline to be abandoned. Bury end to a minimum 3 ft. cover.

12. Cut pipeline riser at working point elevation (+) 16 ft.

3-97 tdb

Coastal
The Energy People

March 12, 1997

Tennessee Gas Pipeline Company
Sugar Mill Point 1115 Regal Row
Houma, Louisiana 70360

Attention: Paul Craft

No.Re: West Cameron 498 Platform
Abandonment, TGP's 16" Line
823 X-2500.

This letter serves as our notification of Coastal Oil & Gas Corporation's desire to proceed with abandonment operations of the above referenced platform. In addition to well and platform plug and abandonment operations, Coastal requests that Tennessee Gas Pipeline proceed with developing plans and implementing abandonment operations on TGP's 16" pipeline associated with this platform.

Per our telephone conversations, Coastal requests abandonment activities occur by May 1997 as we have a pending pipeline, construction and drilling activities planned for this area. As we discussed, Coastal plans to lay an 8" or 10" gas pipeline from our proposed 'B' platform to tie in to the current 16" side tap.

Coastal's project engineer is Mr. Larry DeSpain who can be reached at the following address and telephone number:

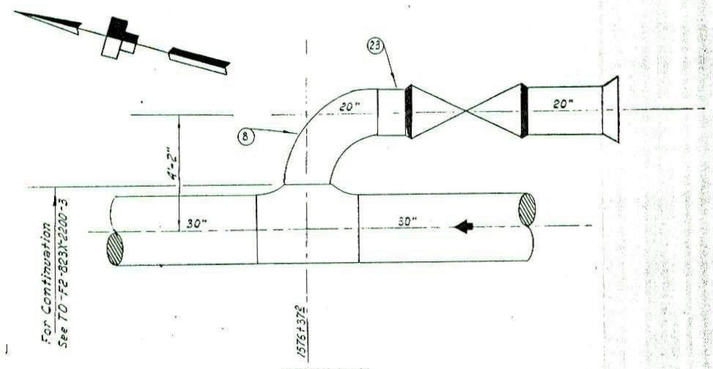
Coastal Oil & Gas Corporation
Nine Greenway Plaza, Ste. 2540
Houston, Texas 77046
(713) 877-7577

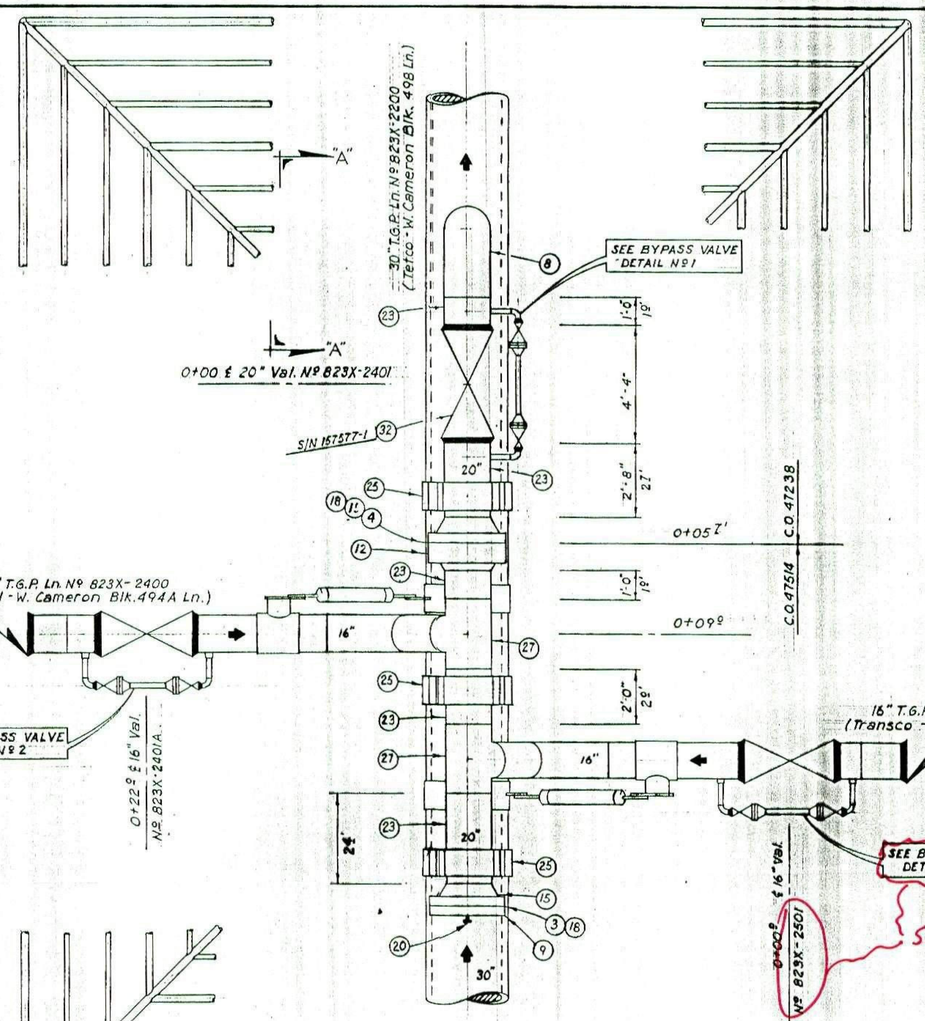
If you have any questions or need further information, please contact me at (713) 877-6189.

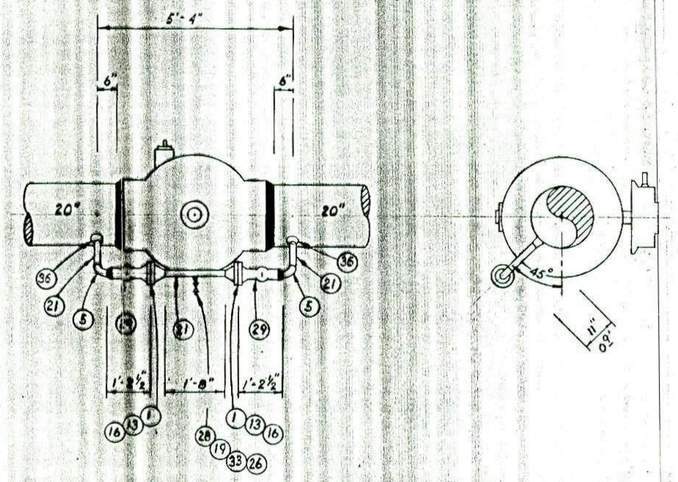
Sincerely,
C.M. Billings
C. M. Billings
Manager Construction/Production

cc: R. Cuttsinger
L. DeSpain
M. Desmond
D. Nelson
J. Talley

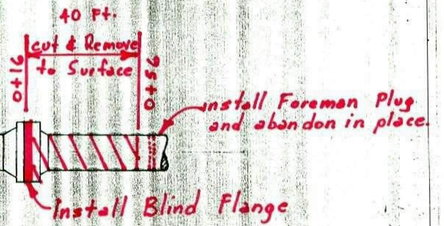
BEST AVAILABLE COPY

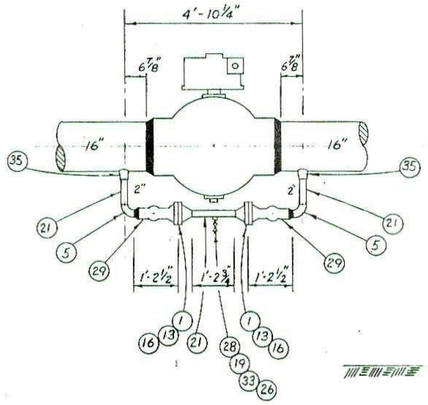






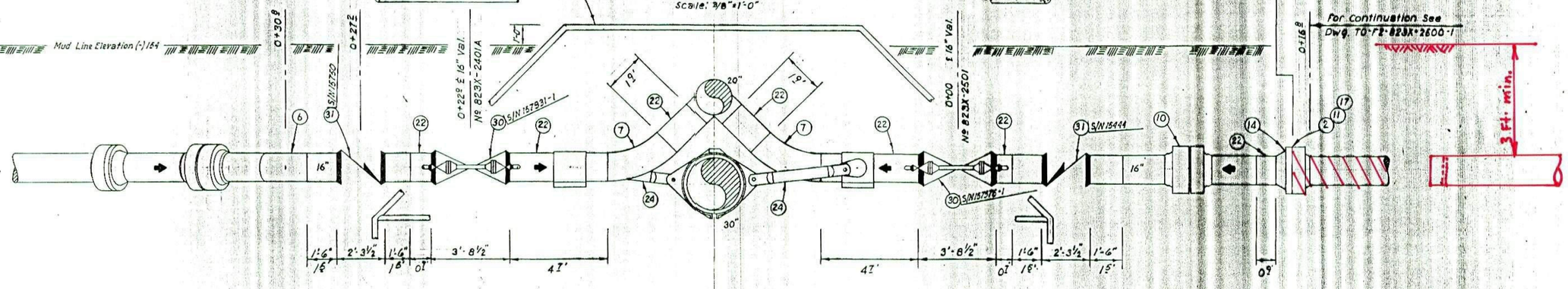
BYPASS VALVE DETAIL Nº 1
Scale: ½"=1'-0"





BYPASS VALVE DETAIL Nº 2
Scale: ½"=1'-0"

PLAN
Scale: 3/8"=1'-0"



ELEVATION
Scale: 3/8"=1'-0"

ABANDONMENT

THIS DWG. CURRENT THRU 10-12-80

REFERENCE DRAWINGS			
DRAWING NO.	TITLE	DRAWING NO.	TITLE
TO-F2-823X-2400-1	Alignment		
" " -1A	Mat'l.		

REVISIONS					
NO.	DATE	REMARKS	REV.	CK'D.	APP.

Tennessee Gas Pipeline Company
Division of Tenneco Inc.
Engineering Department — Houston, Texas

DRAWN BY R.A.N.	DATE 8-81	
CHECKED BY R.S.M.	DATE 10-22-81	
CORRECT BY R.S.M.	DATE 11-12-81	
APPROVED BY H.A.H.	DATE 11-16-81	
	SCALE SHOWN	
ISSUE DATES ORIGINAL	2-28-82	
ISSUE DATES LAST	2-28-82	

MOBIL - WEST CAMERON BLK. 494A LN.
PIPING DETAILS
WEST CAMERON AREA — GULF OF MEXICO
VALVE SECTION

APPROVED BY J.P. Hollowell 11.12.81 ASST. CHIEF ENGINEER
TENNESSEE GAS PIPELINE CO.
TO-F2-823X-2400-1A1

TAX DISTRICT DATA

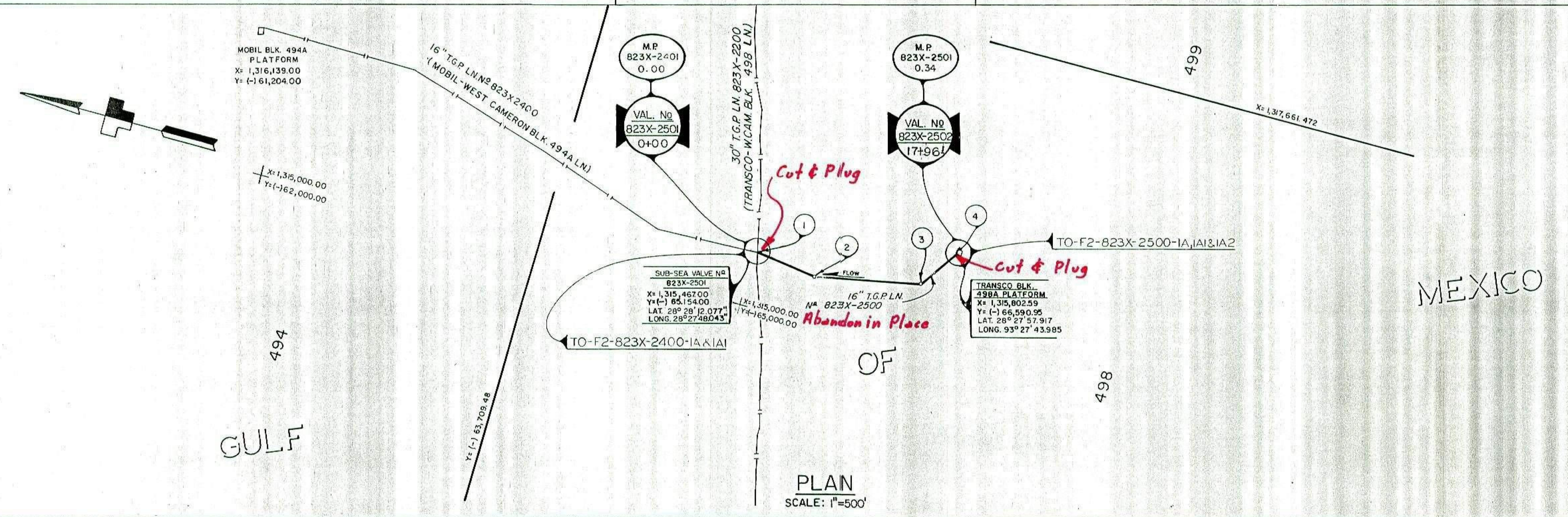
ZONE

Federal Offshore ~ 1,797 Ft.

BEST AVAILABLE COPY

OWNERSHIP & LINE LIST NO.
W. CAM. BLK. 498A

United States Of America
(Gulf Of Mexico)



PT.	BEARING & DISTANCE	LAMBERT	COORDINATES
1		X=1,315,467.00	Y=(-)65,154.00
	S 8° 51' 44" W - 486.81'		
2		X=1,315,392.00	Y=(-)65,635.00
	S 9° 00' 53" E - 778.61'		
3		X=1,315,514.00	Y=(-)66,404.00
	S 57° 03' 53" E - 343.85'		
4		X=1,315,802.59	Y=(-)66,590.95

NOTE: Coordinates On Pts. 1-4 Were Established By "Rayist Survey" Bearings And Distances Between Points Were Calculated Using The Lambert Grid (South Zone) System. The Route As Shown May Not Necessarily Be The Exact Location Of The Pipeline.

Permit Dwg TA-N2-F823X-2500-1, IA, IB
TA-L2-F823X-2500-1, IA, IB, IC, ID, & E

MATERIAL SUMMARY	
ITEM NO.	DESCRIPTION
1.	16" O.D. x .500" W.T. Gr. X-52 Kaiser Pipe
2.	16" O.D. x .375" W.T. Gr. X-52 Kaiser Pipe
3.	Anodes 16" Bracelet Zinc

COATING "A" ~ Concrete Coating To 128% Neg. Buoyancy (2 1/4" Thk.) Over Thin Film
Coating "B" Concrete Coating To 130% Neg Buoyance (1 1/2" Thk.) Over Thin Film.

APRETURED 12-9-93

RETIREMENT

C.O. NUMBER & DESCRIPTION	47516 ORIG CONST.	47514 ORIG. CONST.	5704 / 90206 REPLACE VALVE				
FIELD BOOKS PRELIM.							
CONST.	13913						
FINAL							
LOG & TALLY NOTES	14254, 13379, 14004, 13935, 14002, 13474, 14007, 13910		C.O./R.O. File 1993				

REFERENCE DRAWINGS	
DRAWING NO.	TITLE
TO-F2-823X-2500-IA	Platform Details
TO-F2-823X-2500-IA1	Vsl. 2502 Plan Details
TO-F2-823X-2500-IA2	Vsl. 2502 Details
TO-F2-823X-2400-1	Align. Ln. Nº 823X-2400
TO-F2-823X-2400-IA1	Valve Nº 2501 Details
TO-F2-823X-2400-IA	Valve Nº 2501 Material

Tennessee Gas Pipeline Company
Division of Tenneco Inc.
Engineering Department — Houston, Texas

DRAWN BY S.K.C.	DATE 1-21-81		
CHECKED BY RSM	DATE 11-2-81		
CORRECTED BY RSM	DATE 11-2-81		
APPROVED BY HMM	DATE 11-11-81		
	SCALE Shown		
ISSUE DATES	ORIGINAL 2-28-82		
	LAST 12-93		

TRANSCO-WEST CAMERON BLK. 498A LN.
LN. Nº 823X-2500
WEST CAMERON AREA, GULF OF MEXICO
VALVE SECTION — ENTIRE LINE ON THIS SHEET

APPROVED BY [signature] 11-20-81 CHIEF ENGINEER

TENNESSEE GAS PIPELINE CO.

TO-F2-823X-2500-1

75

BEST AVAILABLE COPY

Abandon Riser in place. Remove with platform

cut Riser N.P.

CONCRETE COATING - 1½" THK.

1½" THK. NEOPRENE VULCANIZED TO OUTSIDE OF PIPE

PAINTED PER MAT'L SPEC.

SEE DETAIL Nº1

MLW ELEV. 0'-0"

MUD LINE ELEV.(-)152'-0"

ROW-A
WEST ELEVATION

TRANSCO-WEST CAMERON
BLK. 498A PLATFORM
Scale: 3/32"=1'-0"

PLAN

For Continuation See Dwg. TO-F2-823X-2500-1A2

T.O. 5½" Deck ℄ Elev. (+) 55'-05½"

Flange 20"x1½" Web 20"x⅝"

ELEVATION ROW-A

DETAIL Nº1
Scale: ½"=1'-0"

℄ Row Nº4

Install Foreman Plug.

Mud Line Elev.(-)152'-0"

3 Ft. min.

Remove Ell

Abandon Pipeline in place.

SECTION A-A

APPROVED 12-9-93
ABANDONMENT

REFERENCE DRAWINGS			
DRAWING NO.	TITLE	DRAWING NO.	TITLE
TO-F2-823X-2500-1	Alignment		
TO-F2-823X-2500-1A1	Vol. 2502 Plan Details		
TO-F2-823X-2500-1A2	Vol. 2502 Details		

REVISIONS					
NO.	DATE	REMARKS	REV.	CKD.	APP.

Tennessee Gas Pipeline Company
Division of Tenneco Inc.
Engineering Department — Houston, Texas

DRAWN BY	J. Curras	DATE 8-20-81
CHECKED BY	RSM	DATE 11-2-81
CORRECT BY	RSM	DATE 11-2-81
APPROVED BY	HMM	DATE 11-11-81
		SCALE Shown
ISSUE DATES	ORIGINAL	2-28-82
	LAST	12-93

TRANSCO-W. CAMERON BLK. 498A L.N. Nº823X-2500
BLOCK 498A PLATFORM RISER DETAILS
WEST CAMERON AREA, GULF OF MEXICO
VALVE SECTION

APPROVED BY 11-30-81 — ASST. CHIEF ENGINEER
TENNESSEE GAS PIPELINE CO.
TO-F2-823X-2500-1A

United States Department of the Interior

MINERALS MANAGEMENT SERVICE
GULF OF MEXICO OCS REGION
1201 ELMWOOD PARK BOULEVARD
NEW ORLEANS, LOUISIANA 70123-2394

SN 5748

In Reply Refer To: LE-3-1
N. O. Misc. No. 014

November 30, 1989

54291

ACTION

Tennessee Gas Pipeline Company — Right-of-Way

MERGER AND CHANGE OF NAME RECOGNIZED

On October 17, 1989, there was filed in this office for approval evidence of merger of Tenneco Merger Company, an unqualified corporation, with and into Tenneco Inc., a Delaware corporation (N. O. Misc. No. 014), and, as of the date of the merger, Tenneco Inc. changed its name to Tennessee Gas Pipeline Company. The effective date of the merger and simultaneous change of name is December 8, 1987. The name of the surviving corporation is Tennessee Gas Pipeline Company and the qualification number assigned thereto is New Orleans Miscellaneous File Number 014.

In connection with the merger and change of name, the following evidence was received:

1. Agreement and Plan of Merger of Tenneco Merger Company with and into Tenneco Inc. under the name of Tennessee Gas Pipeline Company, duly certified by the Secretary of State of the State of Delaware on December 8, 1987, with additional certification by James Gaughan, Assistant Secretary of Tennessee Gas Pipeline Company, on June 7, 1989;

2. Certificate reflecting that Tennessee Gas Pipeline Company is duly incorporated under the laws of the State of Delaware and is in good standing, executed by the Secretary of State of the State of Delaware, on November 3, 1988;

3. Certificate reflecting that Tennesseee Gas Pipeline Company is incorporated under the laws of the State of Delaware and that it is authorized to hold pipeline rights of way and mineral leases on the Outer Continental Shelf, duly executed by Vincent F. Ewell, Jr., Assistant Secretary of Tennessee Gas Pipeline Company, on June 7, 1989;

5748

4. Certificate listing the elected or appointed and now acting officers of Tennessee Gas Pipeline Company, duly executed by James Gaughan, Assistant Secretary of Tennessee Gas Pipeline Company, on June 7, 1989;

5. Copy of resolutions adopted at a meeting of the Board of Directors of Tennessee Gas Pipeline Company held on May 9, 1989, duly certified by James Gaughan, Assistant Secretary of Tennessee Gas Pipeline Company, on June 1, 1989;

6. Bond Rider to be attached to Outer Continental Shelf Right of Way Bond Number 61 S 33110-15-79 BCA changing the name of the principal to Tennessee Gas Pipeline Company, effective December 8, 1987;

7. Listing of the pipeline rights-of-way to be affected by the merger and change of name.

Since the transfer and vesting of property rights in the surviving corporation have been effected by State statutes by operation of law and not by individual conveyances, the merger and change of name are hereby approved insofar as they affect pipeline rights-of-way under 30 CFR 250. The change in ownership as to the pipeline rights-of-way listed below is recognized and the records so noted:

OCS-G NO.	OCS-G NO.	OCS-G NO.	OCS-G NO.	OCS-G NO.
0643	1345	1692	1854	2121-E
0643-A	1376	1702	1854-A	2123
0643-B	1382	1702-B	1854-B	2214
0643-C	1382-A	1702-C	1854-C	2214-A
0643-D	1383	1702-D	1854-E	2975
0649	1434	1702-E	1854-F	2975-A
0875	1434-A	1702-F	1854-G	3221
0877	1434-G	1702-H	1854-H	3221-A
0885	1434-H	1702-I	1854-I	3348
0886	1434-J	1702-K	1907-W	3349
0887	1434-K	1702-L	1950-J	3350
0887-A	1461	1702-M	1950-L	3355
0889	1464	1702-O	1992	3357
0891	1464-A	1702-P	2121	3358
0891-A	1683	1702-Q	2121-A	3360
0892	1684	1702-R	2121-B	3437
0895	1687-S	1702-S	2121-C	3449
1320	1687-T	1702-T	2121-D	3451

OCS-G NO.	OCS-G NO.	OCS-G NO.	OCS-G NO.	OCS-G NO.
3455	4028	4290	4855	7109
3613	4030	4291	4977	7535
3614	4040	4306	5135	7536
3626	4043	4308	5136	7552
3633	4061	4309	5137	7554
3638	4150	4340	5141	7575
3644	4154	4341	5152	7576
3648	4158	4373	5157	7587
3652	4160	4374	5232	8046
3828	4161	4526	5253	8047
3837	4169	4603	5259	8050
3845	4171	4605	5933	8056
3848	4173	4608	5937	8057
3851	4276	4609	6381	8527
3852	4282	4613	6546	8617
3855	4283	4641	7096	10396
3861	4284	4644	7104	11165
3862	4287	4686	7107	11174

J. Rogers Pearcy
Regional Director

cc: Associates
Case Files
Qualification File (N. O. Misc. No. 014)

3N 574

In Reply Refer To: FO-2-2
OCS-G 4291

OCT 0 8 1986

ACTION

Tenneco Inc.	:	Pipe Line Right-of-Way
	:	
	:	Date of Permit: 5-6-80
	:	
	:	Decision Requesting Proof of
	:	Construction Dated: 4-18-86
	:	
	:	Proof of Construction
	:	Received: 8-25-86

Proof of Construction Accepted

The above-captioned grantee has submitted the evidence required by the law and Regulations 30 CFR 256.95(a). The proof of construction is hereby accepted and approved. Deviation from the original plat has been noted and new plat made a part of the record.

Because grantee has deviated from the approved right-of-way by ± 125 feet in Block 498, West Cameron Area, South Addition, Tenneco Inc. must notify TXP Operating Company, operator of Lease OCS-G 3520, to that effect. A return-receipt-card or letter from TXP Operating Company evidencing proof of notice must be submitted to this office within 60 days of receipt hereof.

The total length of the "as-built" pipeline right-of-way is 0.30 miles.

(Orig. Sgd.) J. Rogers Pearcy

J. Rogers Pearcy
Regional Director

CERTIFIED MAIL NO. P012592084

bcc: P/L OCS-G 4291 (FO-2-2)
K. Faust (w/attachments) (FO-2-2)
ORD Reading File
OPS-5 (w/copy of location plat)
L. Boehm (LE-3-1)

CWilliams:mcs:10/01/86:LEXITYPE Disk 5

orc mcs 10/8/86 KF

Williams 10-2-86
Kelly, 10/6/86
Stauffer 10/6/86
Oynes 10/7

BEST AVAILABLE COPY

In Reply Refer To: FO-2-2
OCS-G 4291

OCT 0 8 1986

ACTION

Tenneco Inc.	:	Pipe Line Right-of-Way
	:	
	:	Date of Permit: 5-6-80
	:	
	:	Decision Requesting Proof of Construction Dated: 4-18-86
	:	
	:	Proof of Construction Received: 8-25-86

Proof of Construction Accepted

The above-captioned grantee has submitted the evidence required by the law and Regulations 30 CFR 256.95(a). The proof of construction is hereby accepted and approved. Deviation from the original plat has been noted and new plat made a part of the record.

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The total length of the "as-built" pipeline right-of-way is 0.30 miles.

(Orig. Sgd.) J. Rogers Pearcy

J. Rogers Pearcy
Regional Director

CERTIFIED MAIL NO. P012692084

bcc: P/L OCS-G 4291 (FO-2-2)
K. Faust (w/attachments) (FO-2-2)
ORD Reading File
OPS-5 (w/copy of location plat)
L. Boehm (LE-3-1)

CWilliams:mcs:10/01/86:LEXITYPE Disk 5

Tennessee Gas Pipeline
Division of Tenneco Inc.

Terrebonne Bank Tower
Suite 514
720 East Main Street
Houma, Louisiana 70360
(504) 868-6785

August 22, 1986

U. S. Department of the Interior
Minerals Management Service
Gulf of Mexico OCS Region
1420 South Clearview Parkway
New Orleans, LA 70123

Attention: J. Rogers Pearcy
Regional Director

Re: Proof of Construction
Pipeline Right of Way
OCS-G 4291
West Cameron Block 498-A Line

Dear Sir:

On May 6, 1980, application for a pipeline right of way was approved and permit issued for the construction, maintenance and operation of a sixteen inch (16") natural gas pipeline in the West Cameron Area, Gulf of Mexico, Offshore Louisiana.

In accordance with regulations 30 CFR 256.95 (a) and appropriate guidelines, we attach herewith in triplicate, the "As-Built" Drawing No. TO-F2-823X-2500-1, along with three (3) copies of the hydrostatic test data.

If there is any additional information needed pertaining to this matter, please call this office.

Sincerely,

K. J. Cheramie

K. J. Cheramie
Right of Way Agent

KJC:vdm

Enclosures

cc: J. A. Viator
K. A. Thibodeaux
File

C. Williams Lease No. 4291 FO-2-2

PS Form 3811, July 1983 447-845

SENDER: Complete items 1, 2, 3 and 4.

Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for service(s) requested.

1. ☒ Show to whom, date and address of delivery.
2. ☐ Restricted Delivery.

3. Article Addressed to:
Tenneco Inc.
Attention: Mr. Kurt Cheramie
720 East Main Street, Suite 514
Houma, Louisiana 70360

4. Type of Service:
☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail

Article Number
012692084

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature – Addressee
X Vicki Martin

6. Signature – Agent
X

7. Date of Delivery
10-9-86

8. Addressee's Address *(ONLY if requested and fee paid)*

DOMESTIC RETURN RECEIPT

FO-2-2

P 012 692 084

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Tenneco Inc. Attention: Mr. Kurt Cheramie	
Street and No. 720 East Main St, Suite 514	
P.O., State and ZIP Code Houma, Louisiana 70360	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date G-4291	

★ U.S.G.P.O. 1984-446-014

PS Form 3800, Feb. 1982

Tennessee Gas Pipeline Co.
(COMPANY)

823X-2500

12/17/80 ЈВЗ 302

PIPE LINE TEST

NOTE: SEE PROCEDURES TGT 6-129 FOR INSTRUCTIONS

C.O. NO. 47516	DISTRICT 823	LINE NO. 823X-2500	SPREAD Fab Yd.	SECTION #1	DATE Sept. 30, 1980
DRAWING NO. TE-MP823X-2502-1&2 TE-F2-823X-2500-10	LOCATION ~~FROM MLV~~ 823X-2502 ~~TO MLV~~		SECTION TESTED FROM STA.	TO STA.	FOOTAGE
NOMINAL PIPE:	SIZE O.D. 20 IN.	W.T. .625 IN.	GRADE X-52	MFR. USS	
100% S.M.Y.S. PRESSURE 3250 PSIG	M.A.O.P. PSIG		PIPELINE CONTRACTOR Brown & Root Inc.		
HYDROSTATIC TEST CONTRACTOR Brown & Root Inc.			PROJECT MANAGER Keith LaFleur		
COMPANY PERSONNEL INVOLVED J. Dressback & G.H. Weeks					
TEST MEDIUM (WATER, GAS, AIR, OTHER) Water					

	END OF TEST SECTION	PRESSURE POINT	HIGH ELEVATION	LOW ELEVATION	END OF TEST SECTION
MAP PLUS		N/A	N/A	N/A	N/A
ELEVATION (FEET)	N/A	N/A	N/A	N/A	N/A
TEST PRESSURE (PSI)	2163	2163	2163	2163	2163
% S.M.Y.S	66.55	66.55	66.55	66.55	66.55

TEST SKETCH (ATTACH ADDITIONAL SKETCH SHEET IF NECESSARY) ——→ FLOW TEST SECTION NO. ______

M.P. 823X-2502+0.0

See Test Sketch No 1&2 Attached

MINERALS MANAGEMENT SERVICE
RECEIVED
25 1986
FIELD OPERATIONS
Gulf of Mexico OCS Region, New Orleans, La.

BEST AVAILABLE COPY

USEFUL CONVERSION FACTORS: • 1 FOOT OF WATER = .433 PSI • 1 PSI = 2.31 FEET OF WATER	WATER SOURCE Tap	MILE POST Fab. Yard	WATER SOURCE TEMPERATURE 74°

DEVIATION DATA (OBSERVED AT PRESSURE PT)	INITIAL DEVIATION:	PRESSURE PSIG	% S.M.Y.S.	
	FINAL DEVIATION:	PRESSURE PSIG	% S.M.Y.S.	DEVIATION PSI

FAILURE DATA (OBSERVED AT FAILURE PT)	DATE	TIME A.M. P.M.	MAP STATION	ELEVATION	FAILURE PRESSURE PSIG % S.M.Y.S.
	DESCRIPTION (ATTACH SKETCH OR PHOTO)		REPAIRS MADE (USE BACK IF NEEDED)		

☐ ALL TIE-IN WELDS WERE NONDESTRUCTIVELY TESTED
METHOD: BY

ELEVATION DATA DERIVED FROM PROFILE SHEET TE- OR U.S.G.S. QUAD SHEET·

TEST REJECTED	TEST ACCEPTED		DATE
NOTE: SEE ABOVE FAILURE DATA	TEST INSPECTOR SIGNATURE:	G.H. Weeks	9-30-80
	DISTRICT SIGNATURE:	S.B. [illegible]	12/12/80
SIGNATURE: ______	DIVISION SIGNATURE:	[illegible]	12-17-80
DATE: ______	AGENCY SIGNATURE:		

TQT 4207 3/80

TABLE OF TEST PRESSURES

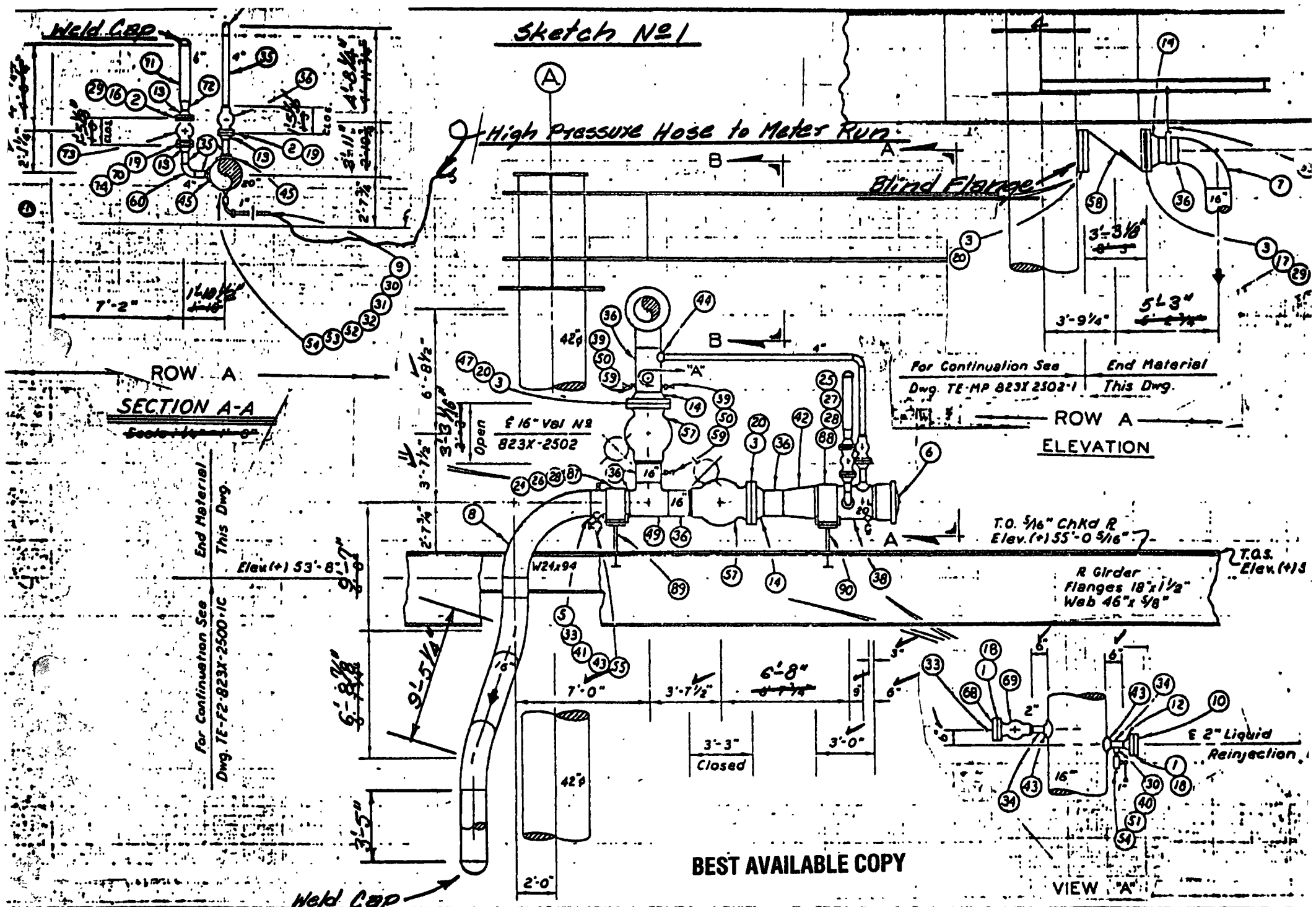
DATE	TIME	DEAD WEIGHT	TEMPERATURE		REMARKS: (ON TEST, WEATHER, BLEED OFF, OFF TEST, NO. OF STROKES FOR REPRESSURE, ETC.)
			TEST WATER	AMBIENT	
9-30-80	11:30 A.M.	25	74°	75°	Start Pump - Cloudy
"	1:00 P.M.	2170	83°	74°	on Test
"	1:10 "	2163	83°	74°	Repressure to 2175
"	1:18 "	2163	82°	74°	" " 2175
"	1:30 "	2168	82°	73°	
"	1:43 "	2163	82°	73°	Repressure to 2175
"	1:56 "	2163	82°	73°	" " 2175
"	2:15 "	2163	82°	73°	" " 2175
"	2:32 "	2163	82°	73°	" " 2175
"	2:59 "	2163	82°	73°	" " 2175
"	3:20 "	2163	81°	72°	" " 2175
"	3:43 "	2163	81°	72°	" " 2175
"	4:05 "	2163	81°	73°	" " 2175
"	4:30 "	2167	81°	73°	
"	4:38 "	2163	81°	73°	Repressure to 2175
"	4:45 "	2171	81°	73°	
"	5:00 "	2165	81°	74°	Partly Cloudy
"	5:15 "	2164	81°	74°	Off Test

COMMENTS:

Temperature Chart - Barton 265A-2032

Pressure Chart - Barton 242A-1628

Dead Weight - 4731



DRAWN BY P.A.N.	DATE 2-1-80	TRANSCO - WEST CAMERON BLK. 498A LN.
CHECKED BY H.W.	DATE 2-11-80	LN. No 823X-2500
CORRECT BY [illegible]	DATE 2-13-80	VALVE 2502 DETAILS
DESIGNED BY J.C.I.	DATE 2-17-80	WEST CAMERON AREA, GULF OF MEXICO
APPROVED BY [illegible]	DATE [illegible]	
CONST [illegible]	DATE 3-5-80	
OPER [illegible]	DATE 3-5-80	

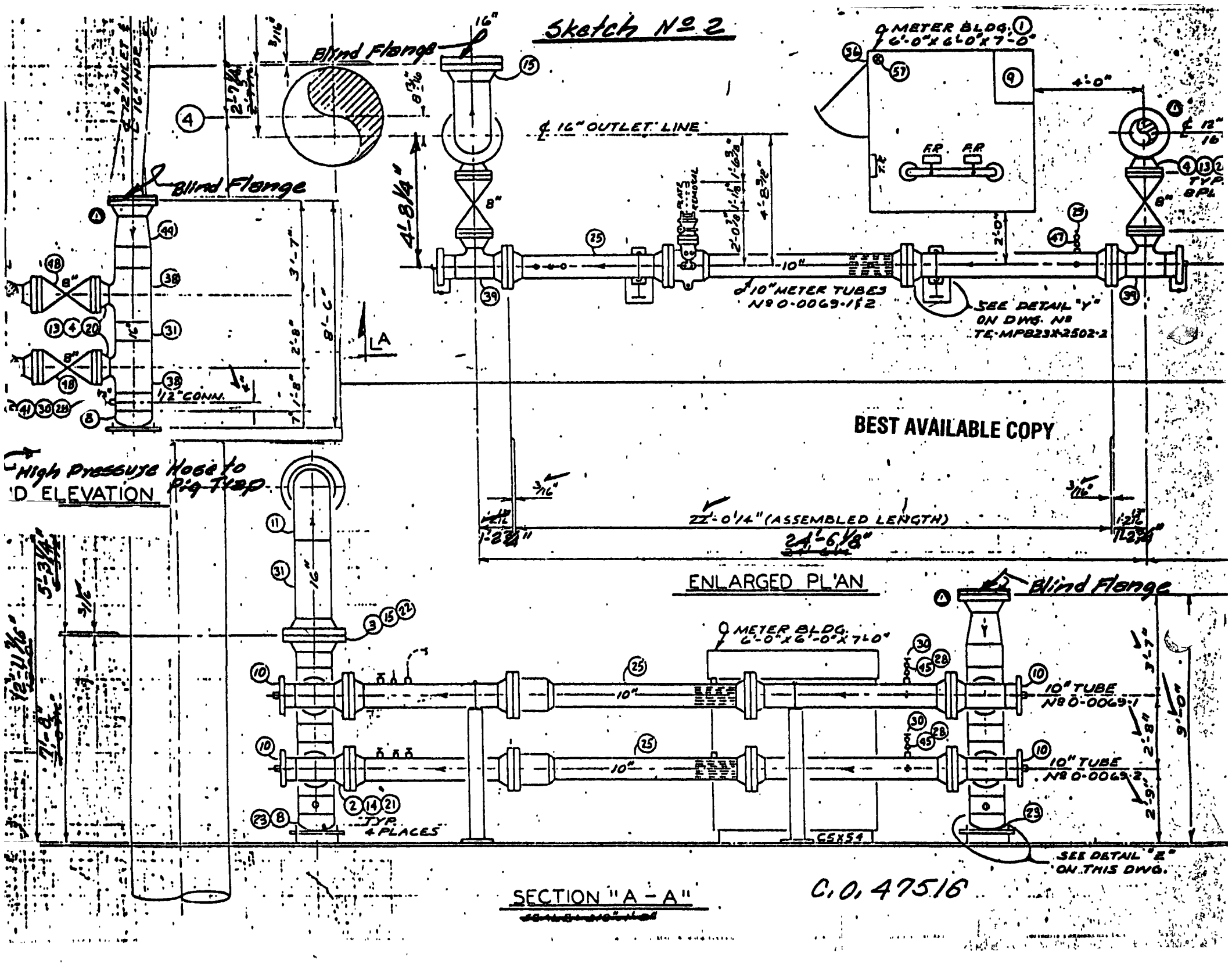
Tennessee Gas Pipeline Company
Division of Tenneco Inc.
Engineering Department Houston, Texas

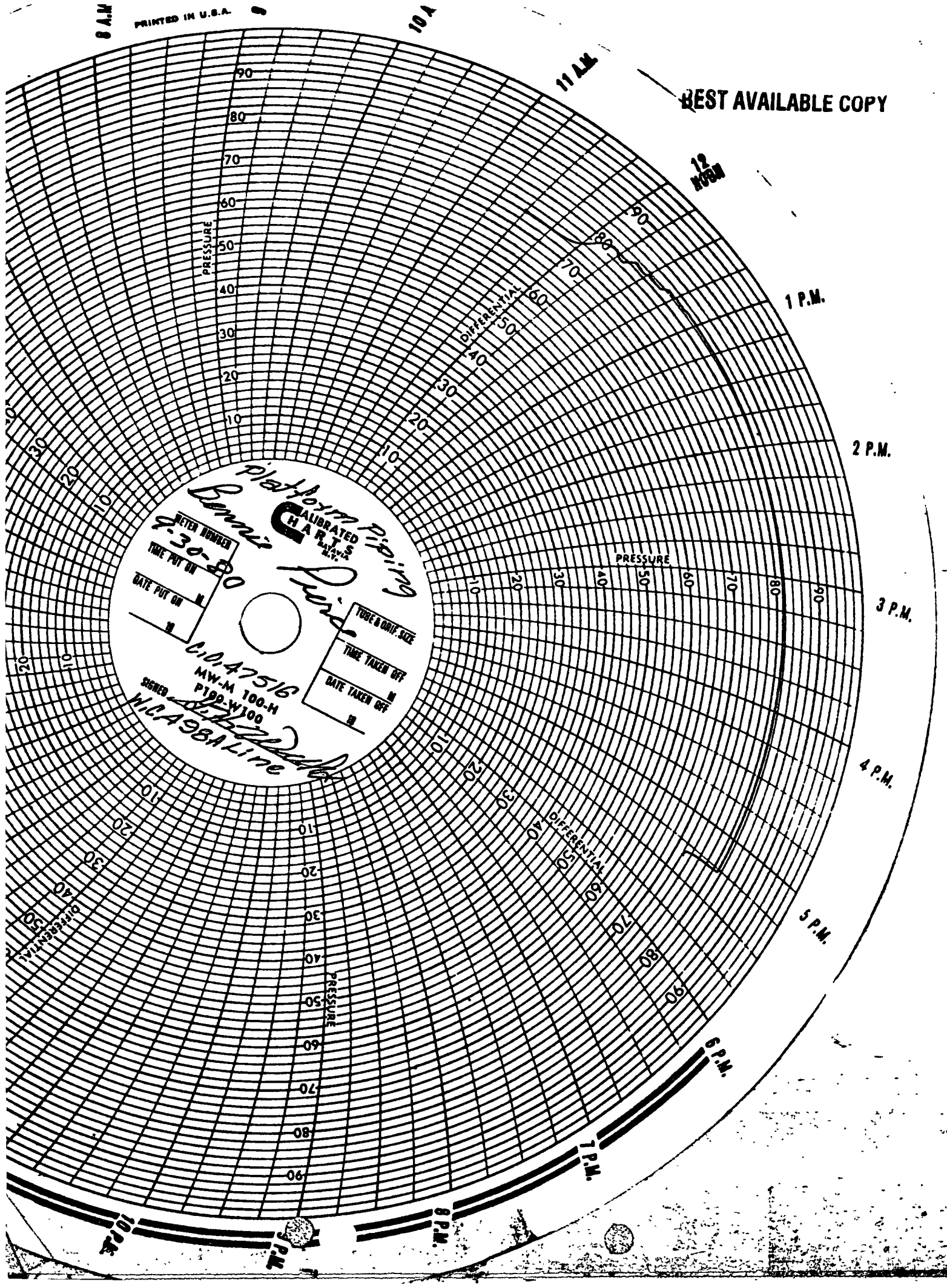
APPROVED BY [illegible] 3-4-80 ASST CHIEF

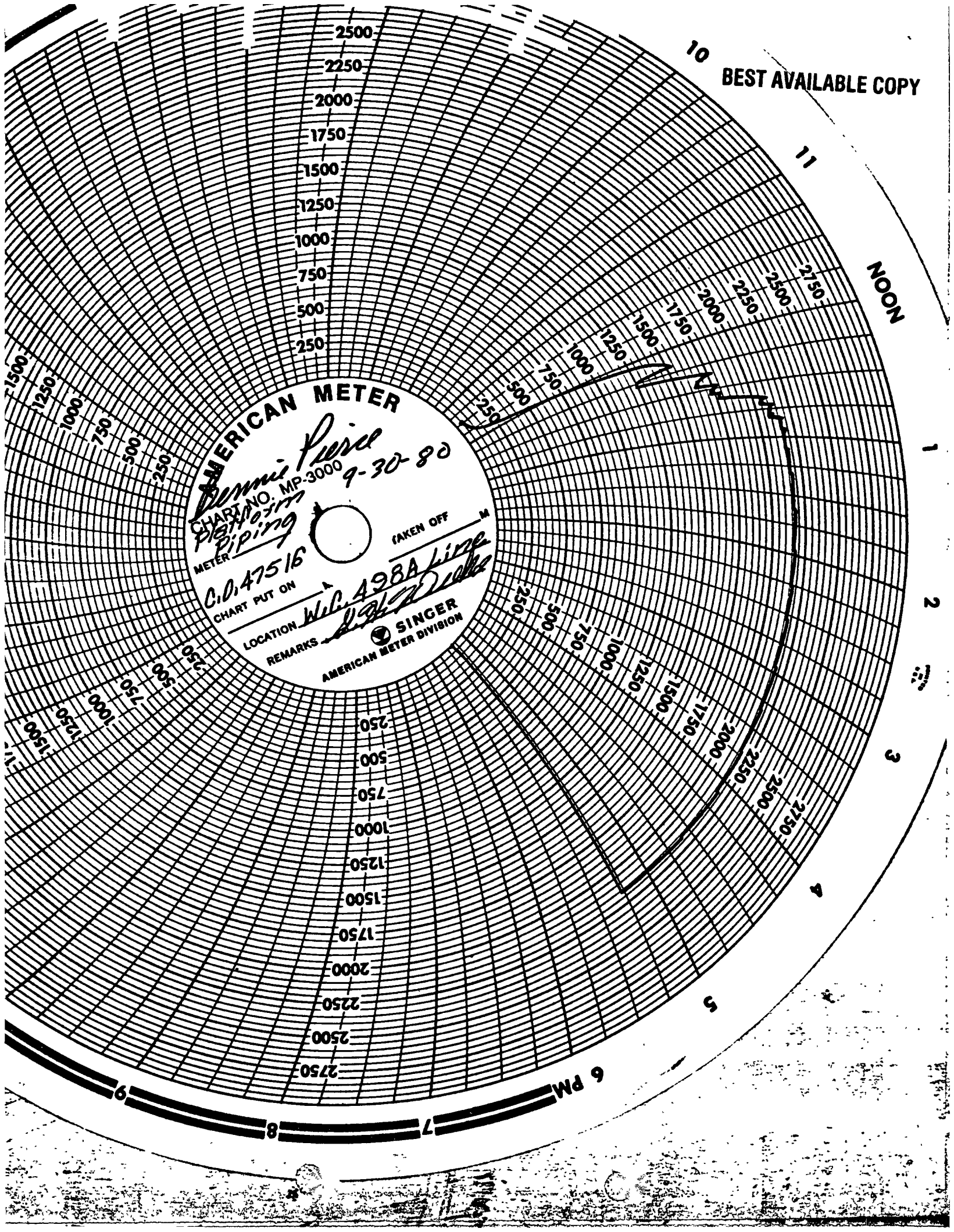
TENNESSEE GAS PIPELIN

TE-F2-823X-250

Sketch No 2







Tennessee Gas Pipeline (COMPANY) 823X - 2400 12/17/80 JB3 301

PIPE LINE TEST

NOTE: SEE PROCEDURES TGT 6-129 FOR INSTRUCTIONS

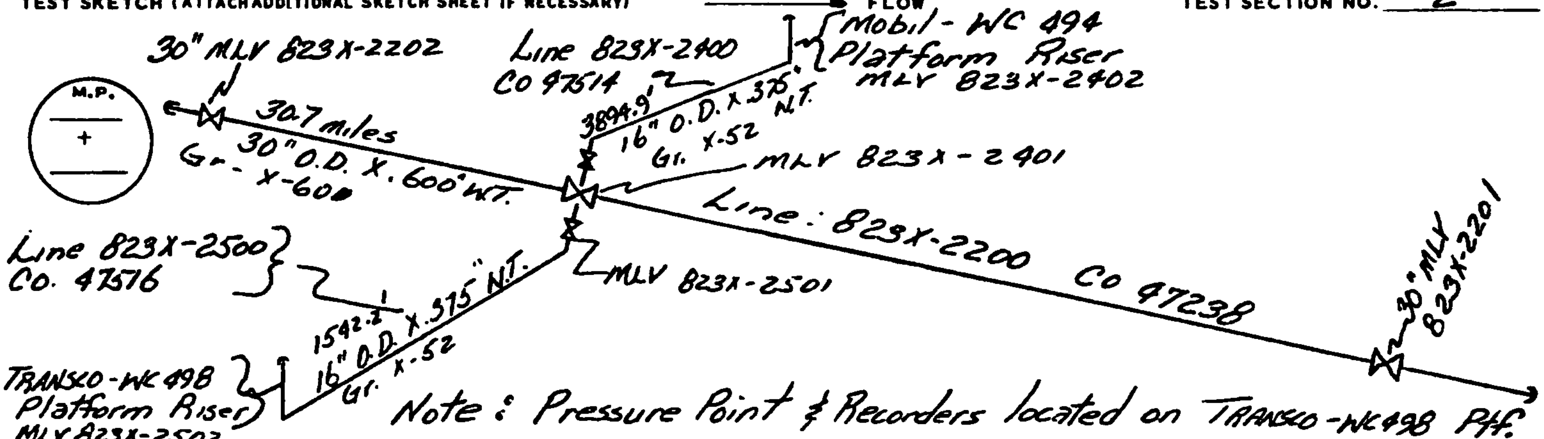
C.O. NO. 47238 47514 47516	DISTRICT 823	LINE NO. 823X- 2200 2400 2500	SPREAD B&R m228	SECTION 2	DATE 11-30-80
DRAWING NO. TGF2-823X- 2200-1,2,3 2400-1 2500-1	LOCATION FROM MLV See sketch TO MLV		SECTION TESTED FROM STA. See sketch TO STA.		FOOTAGE See sketch
NOMINAL PIPE:	SIZE O.D. 30 IN.	W.T. .600 IN.	GRADE X-60	MFR. U.S.S.	
100% S.M.Y.S. PRESSURE 2400 PSIG	M.A.O.P. PSIG		PIPELINE CONTRACTOR Brown & Root inc.		
HYDROSTATIC TEST CONTRACTOR Double "L" Hydrotest, INC.			PROJECT MANAGER L.D. Lowry		

COMPANY PERSONNEL INVOLVED: L.R. Slowik

TEST MEDIUM (WATER, GAS, AIR, OTHER): Water

	END OF TEST SECTION	PRESSURE POINT	HIGH ELEVATION	LOW ELEVATION	END OF TEST SECTION
MAP PLUS	823X-2201 30.7	823X-2501 0.29	823X-2501 0.29	823X-2201 30.7	823X-2201 0
ELEVATION (FEET)	0	+57	+57	0	0
TEST PRESSURE (PSI)	2186	2161	2161	2186	2186
% S.M.Y.S	91%	90%	90%	91%	91%

TEST SKETCH (ATTACH ADDITIONAL SKETCH SHEET IF NECESSARY) TEST SECTION NO. 2



USEFUL CONVERSION FACTORS: • 1 FOOT OF WATER = .433 PSI • 1 PSI = 2.31 FEET OF WATER	WATER SOURCE Gulf of Mexico	MILE POST	WATER SOURCE TEMPERATURE 70°

DEVIATION DATA (OBSERVED AT PRESSURE PT)				
	INITIAL DEVIATION:	PRESSURE PSIG	% S.M.Y.S.	
	FINAL DEVIATION:	PRESSURE PSIG	% S.M.Y.S.	DEVIATION PSI

FAILURE DATA (OBSERVED AT FAILURE PT)					
	DATE	TIME A.M. P.M.	MAP STATION	ELEVATION	FAILURE PRESSURE PSIG % S.M.Y.S.
	DESCRIPTION (ATTACH SKETCH OR PHOTO)		REPAIRS MADE (USE BACK IF NEEDED)		

☐ ALL TIE-IN WELDS WERE NONDESTRUCTIVELY TESTED — BY
METHOD:

ELEVATION DATA DERIVED FROM PROFILE SHEET TE- OR U.S.G.S. QUAD SHEET:

TEST REJECTED	TEST ACCEPTED	DATE
NOTE: SEE ABOVE FAILURE DATA	TEST INSPECTOR SIGNATURE: L.R. Slowik	11-30-80
	DISTRICT SIGNATURE: S.E. Autrey	12/12/80
SIGNATURE:	DIVISION SIGNATURE: [signature]	12-17-80
DATE:	AGENCY SIGNATURE:	

BEST AVAILABLE COPY

TQT 4207 3/80

TABLE OF TEST PRESSURES

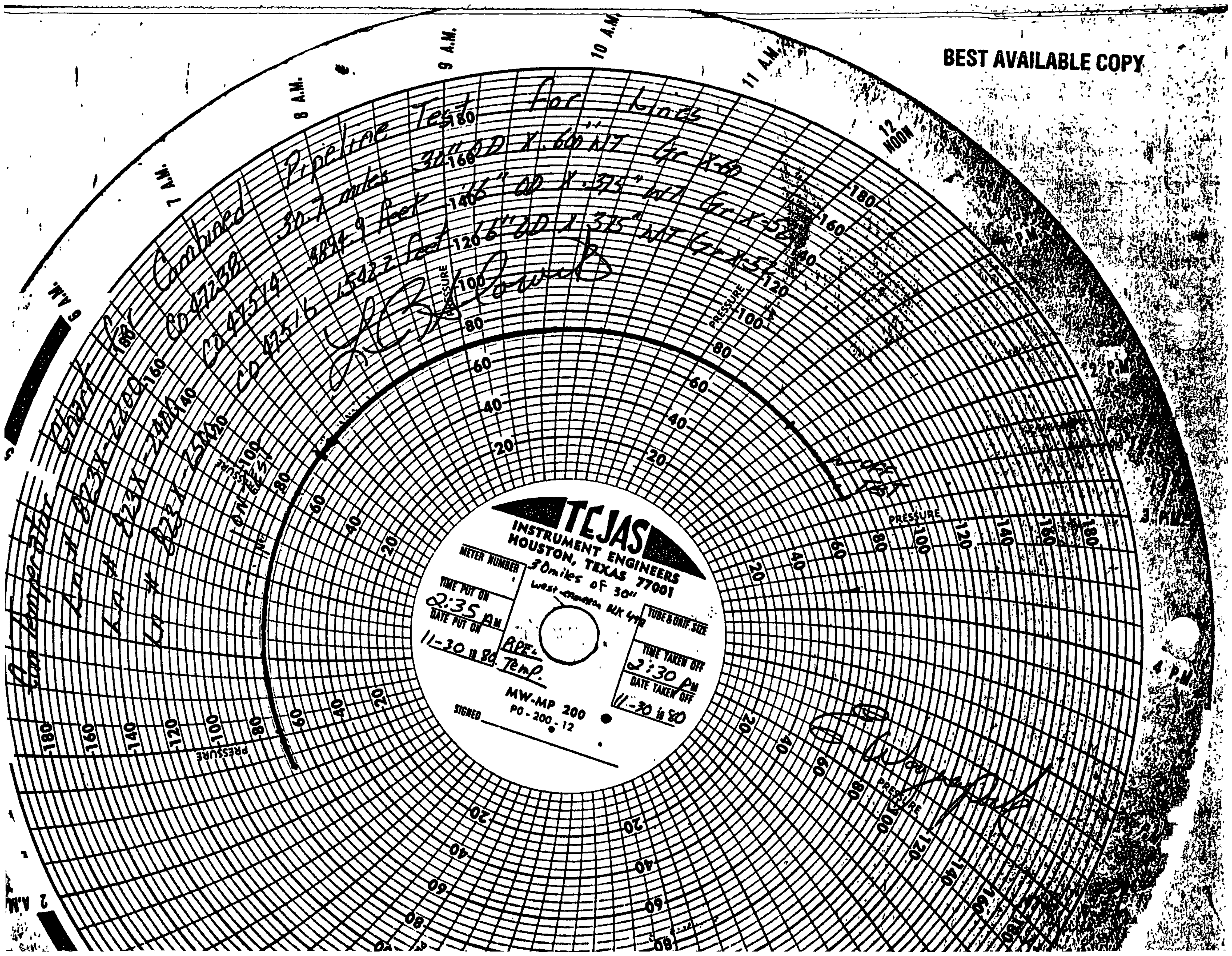
DATE	TIME	DEAD WEIGHT	TEMPERATURE		REMARKS: (ON TEST, WEATHER, BLEED OFF, OFF TEST, NO. OF STROKES FOR REPRESSURE, ETC.)
			TEST WATER	AMBIENT	
11-30-80	0520	2175	70 °F	67 °F	Begin Test
	0535	2175	"	"	
	0550	2173	"	"	
	0600	2173	71 °F	68 °F	
	0615	2172	"	"	
	0630	2171	"	"	
	0645	2170	"	"	
	0700	2170	"	"	
	0715	2169	"	"	
	0730	2168	"	"	
	0800	2167	"	"	
	0830	2166	"	"	
	0900	2165	"	69° F	
	0930	2163	"	"	
	1000	2161	"	"	
	1015	2174	"	"	Repressure 2161 → 2179
	1030	2173	"	"	
	1100	2172	"	"	
	1130	2171	"	"	
	1200	2170	"	"	
	1230	2168	"	"	
	1300	2167	"	68°	
	1330	2167	"	"	
	1400	2165	"	"	OFF TEST
11-30-80	1600	120			Bleed down

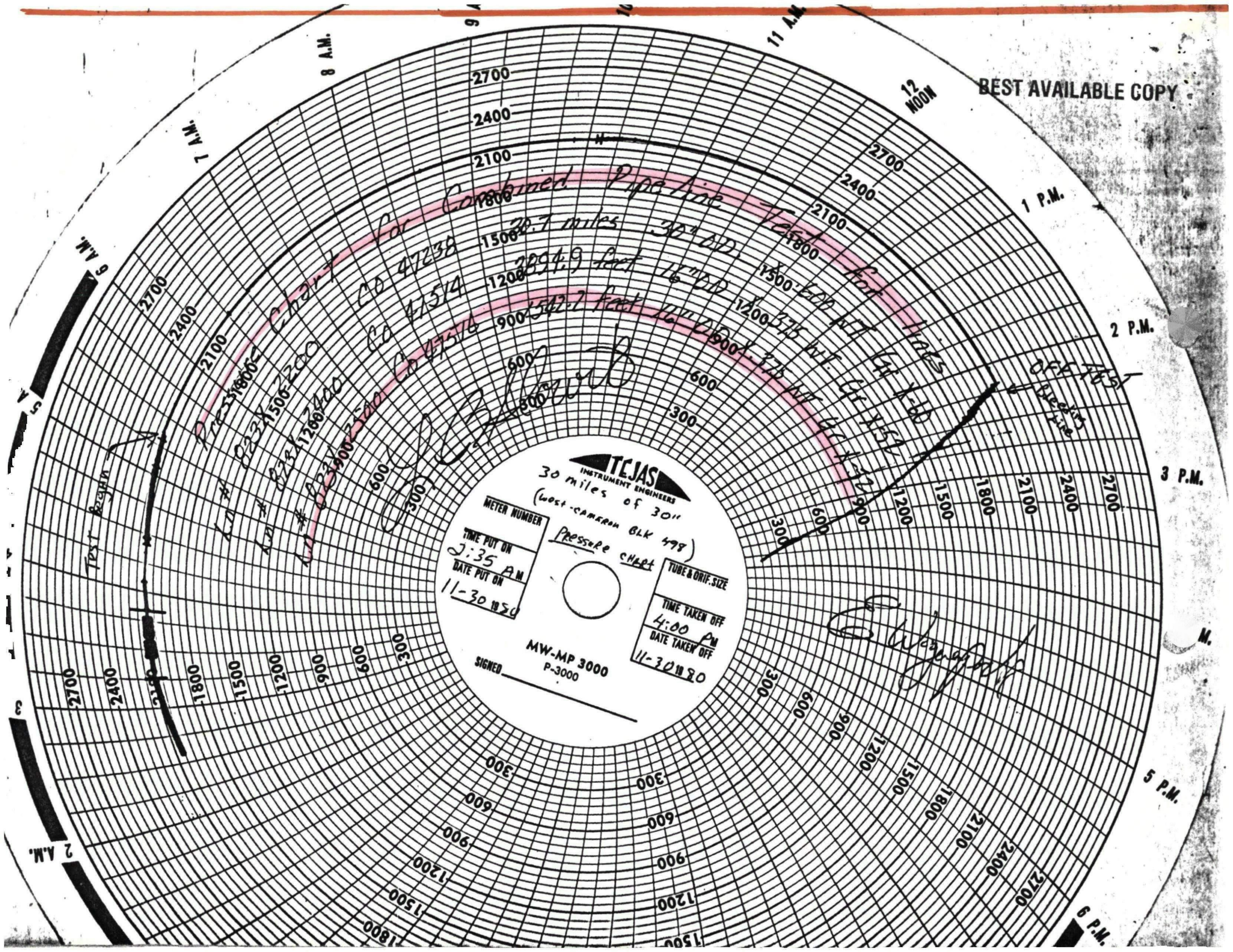
COMMENTS:

Dead Weight (-0-3000 Psi) ser # 2085

Pressure Recorder (0-3000 Psi) Standard # PR-LL-014

Temperature Recorder (0-200°) Barton # 242A-4299





8-71

TENNESSEE GAS PIPELINE
(COMPANY)

SHEET 1 OF 1

E: SEE PROCEDURE TGT 6-129 FOR INSTRUCTIONS

PIPE TEST REPORT

1/15/81 Q83

C.O. NO.	DISTRICT	LINE NO.	SPREAD	SECTION	DATE
47238 & 47514	823	823X-2400	FAB. TEST		8/28/80

DRAWING NO.	LOCATION	SECTION TESTED	FOOTAGE
TE-F2-823X-2200 TE-F2-823X-2400-1B	FROM MLV TO MLV	FROM STA. TO STA. 0+30	

NOMINAL PIPE	SIZE O.D.	W.T.	GRADE	MFR.
16"	16" IN.	.500 .375 IN.	X-52	

100% S.M.Y.S. PRESSURE	M.A.O.P.	PIPELINE CONTRACTOR
2412 (16"O.D. X .375" W.T. GR X-52) PSIG	PSIG	BROWN & ROOT INC.

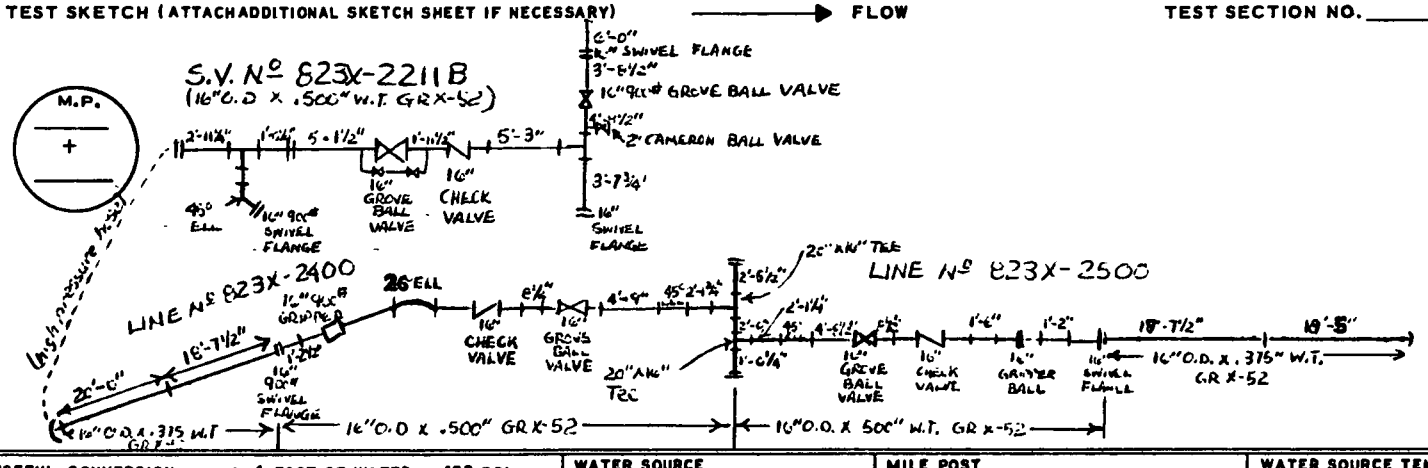
HYDROSTATIC TEST CONTRACTOR	PROJECT MANAGER
BROWN & ROOT, INC.	KEITH LAFLEUR

COMPANY PERSONNEL INVOLVED: KEITH C. SHOEMAKER

TEST MEDIUM (WATER, GAS, AIR, OTHER): WATER

	END OF TEST SECTION	PRESSURE POINT	HIGH ELEVATION	LOW ELEVATION	END OF TEST SECTION
MAP PLUS					
ELEVATION (FEET)	← FAB.	YARD	TESTED		→
TEST PRESSURE (PSI)	2162	2162	2162	2162	2162
% S.M.Y.S	89.63	89.63	89.63	89.63	89.63

TEST SKETCH (ATTACH ADDITIONAL SKETCH SHEET IF NECESSARY) → FLOW TEST SECTION NO. _____



USEFUL CONVERSION FACTORS:	WATER SOURCE	MILE POST	WATER SOURCE TEMPERATURE
• 1 FOOT OF WATER = .433 PSI • 1 PSI = 2.31 FEET OF WATER	TAP	FAB. YARD.	79°

DEVIATION DATA (OBSERVED AT PRESSURE PT)				
	INITIAL DEVIATION:	PRESSURE PSIG	% S.M.Y.S.	
	FINAL DEVIATION:	PRESSURE PSIG	% S.M.Y.S.	DEVIATION PSI

FAILURE DATA (OBSERVED AT FAILURE PT)	DATE	TIME A.M. P.M.	MAP STATION	ELEVATION	FAILURE PRESSURE PSIG	% S.M.Y.S.
	DESCRIPTION (ATTACH SKETCH OR PHOTO)		REPAIRS MADE (USE BACK IF NEEDED)			

☑ ALL TIE-IN WELDS WERE NONDESTRUCTIVELY TESTED BY MOBILE LAB
METHOD: GAMMA RAY

ELEVATION DATA DERIVED FROM PROFILE SHEET TE- OR U.S.G.S. QUAD SHEET:

TEST REJECTED	TEST ACCEPTED	DATE
NOTE: SEE ABOVE FAILURE DATA	TEST INSPECTOR SIGNATURE: Keith C. Shoemaker	8/28/80
SIGNATURE:	DISTRICT SIGNATURE: L. B. Gentry	1-12-81
DATE:	DIVISION SIGNATURE: Reno H. Hilleton	1-15-81
	AGENCY SIGNATURE:	

8771

TABLE OF TEST PRESSURES

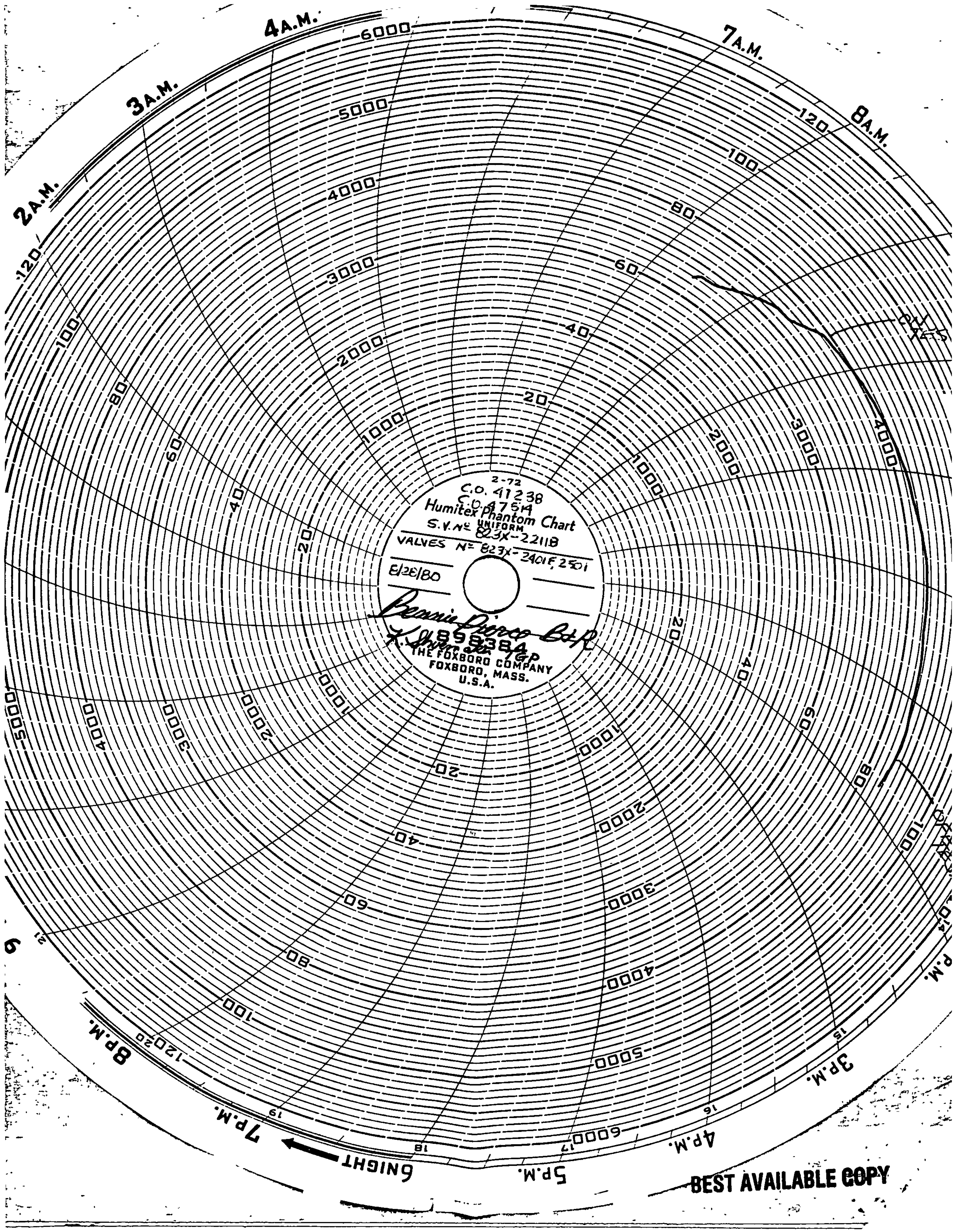
DATE	TIME	DEAD WEIGHT	TEMPERATURE		REMARKS: (ON TEST, WEATHER, BLEED OFF, OFF TEST, NO. OF STROKES FOR REPRESSURE, ETC.)
			TEST WATER	AMBIENT	
8/28/80	9:35AM	2170	79°	82°	ON TEST, CLOUDY
	9:45	2172	79°	82°	
	9:50	2175	79°	82°	BLEED TO 2165#
	10:00	2175	80°	83°	BLEED TO 2163 @ 9:54 PRESSURE CHART CHANGED
	10:10	2175	80°	84°	BLEED TO 2163
	10:19	2175	81°	84°	BLEED TO 2165
	10:30	2175	82°	84°	BLEED TO 2165
	10:41	2175	82°	84°	BLEED TO 2163
	10:48	2175	82°	84°	BLEED TO 2163
	11:00	2175	83°	85°	BLEED TO 2163
	11:09	2175	83°	85°	BLEED TO 2163
	11:18	2175	83°	86°	BLEED TO 2162
	11:30	2175	84°	86°	BLEED TO 2162
	11:37	2175	84°	86°	BLEED TO 2162
	11:47	2175	85°	86°	BLEED TO 2162
	11:55	2175	85°	87°	BLEED TO 2162
	12:05	2175	85°	87°	BLEED TO 2162
	12:17	2175	85°	87°	BLEED TO 2162
	12:25	2175	85°	87°	BLEED TO 2162
	12:35	2175	85°	87°	" "
	12:43	2175	85°	87°	" "
	12:51	2175	85°	88°	" "
	1:05	2175	86°	88°	" "
	1:16	2175	86°	88°	" "
	1:25	2175	86°	88°	" "
	1:35	2175	86°	87°	BLEED OFF TEST

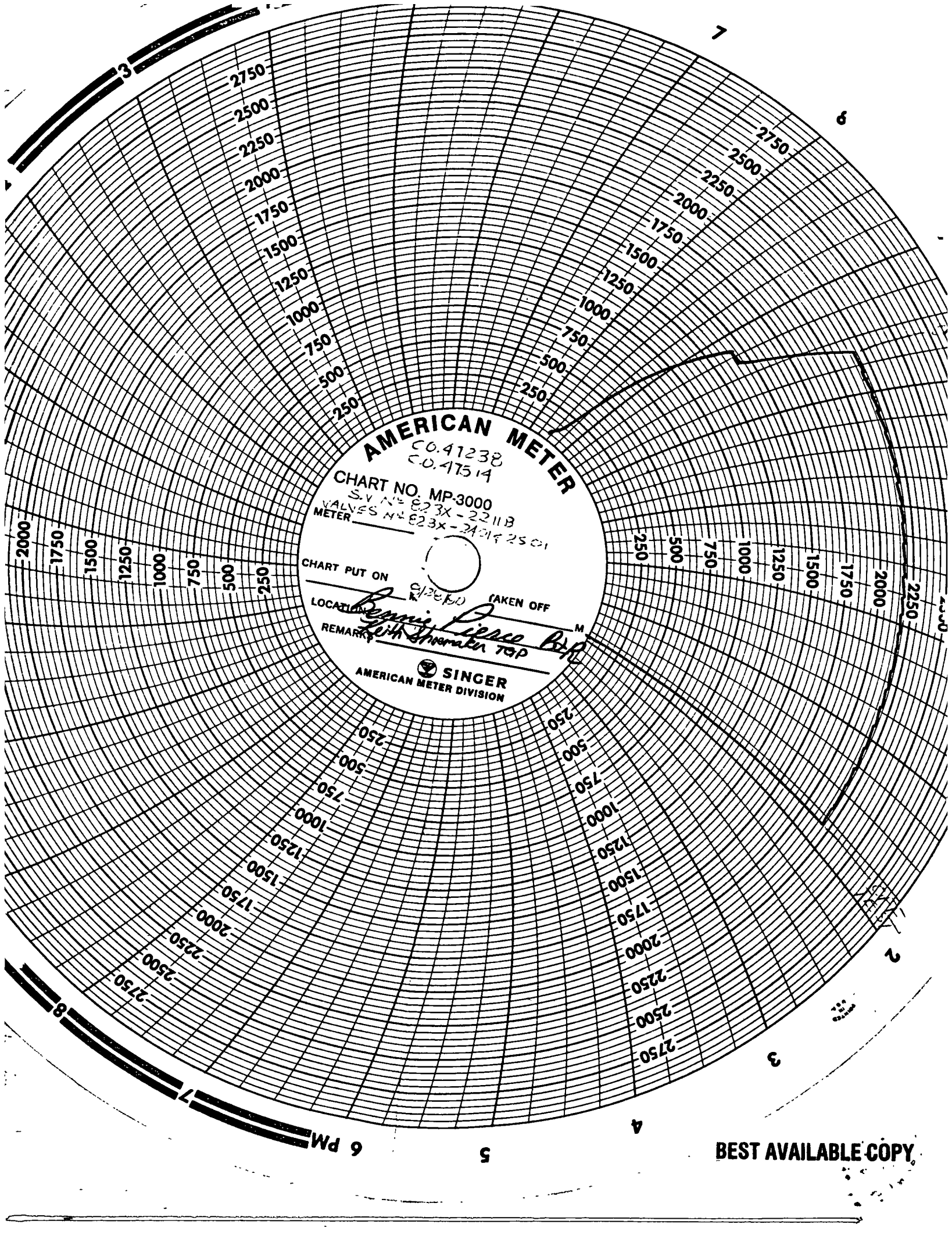
COMMENTS:

PRESSURE CHART - BARTON S/N 242A-1028

TEMPERATURE RECORDER - BARTON S/N 2399985

DEAD WT. APPARATUS - CHANDLER S/N 4731




AMERICAN METER
C.O. 41238
C.O. 47514
CHART NO. MP-3000
METER
CHART PUT ON
TAKEN OFF
LOCATION
REMARKS
Bennie Pierce B&P
Keith Shumaker T&P
SINGER
AMERICAN METER DIVISION
BEST AVAILABLE COPY

ATTACHMENT 5

NOTIFICATION OF HYDROSTATIC TEST

Date: 11-20-80

1. OCS Number G 4291
2. Name of Company Tenneco, INC.
3. Size of Pipeline 16" GAS Length _____ Miles 0.27
4. From where to where Transco Exploration Company's "A" platform to a subsea tie with OCS-G4171, all which are located in Block 498 West Cameron Area So. Add.
   (area, block number and platform name)
5. Platform where hydrostatic test instruments will be set up Mobil's "A" Platform in West Cameron Area, Block 494
6. Contractors Name and Barge Name or Number Brown & Root INC. # 228
7. Date and Time of Proposed Test November 22, 1980

Name of Company Contact Larry Slavik

Telephone Number (504) 876-4516 Houma, La.

BLM's Notification To: USGS FRANK TORRES by Copy of this Notice
U. S. Coast Guard N/A

NOTE: Notification may be made by calling Autry Britton at A.C. 504 589-6541 between the hours of 7:45 a.m. and 4:15 p.m. Monday through Friday.

Autry J. Britton — BLM

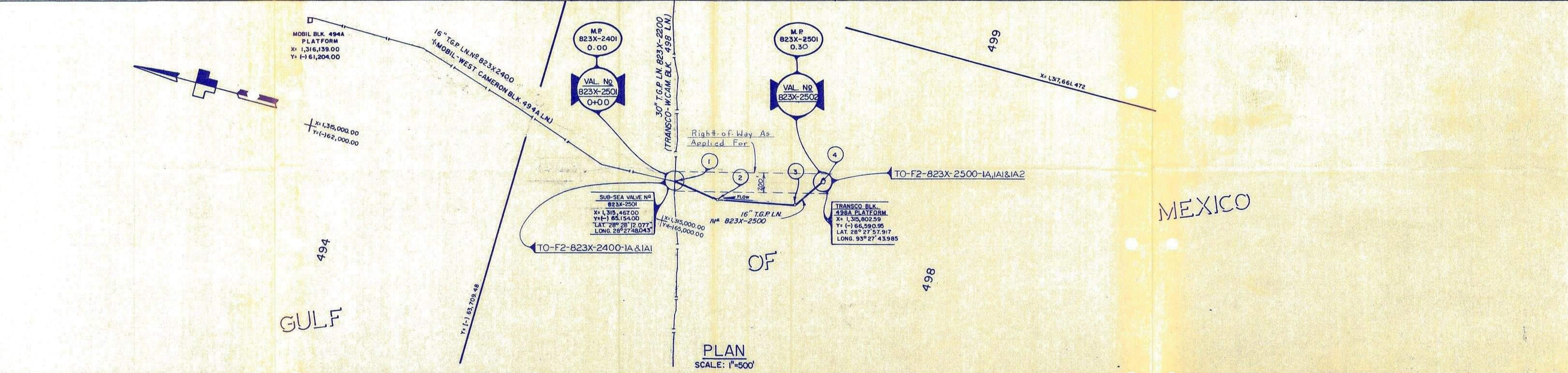
TAX DISTRICT DATA

BEST AVAILABLE COPY

OWNERSHIP & LINE LIST NO.
W. CAM. BLK. 498A

Federal Offshore ~ 1,797 Ft.

Begin Line — United States Of America (Gulf Of Mexico) — End Line



PLAN
SCALE: 1"=500'

TEST PRESSURE & MEDIUM

PROFILE
SCALE: HORIZ. 1"=500' VERT. 1"=20'

PT.	BEARING & DISTANCE	LAMBERT	COORDINATES
1		X=1,315,467.00	Y=(-)65,154.00
	S 8° 51' 44" W - 486.81'		
2		X=1,315,392.00	Y=(-)65,635.00
	S 9° 00' 53" E - 778.61'		
3		X=1,315,514.00	Y=(-)66,404.00
	S 57° 03' 53" E - 343.85'		
4		X=1,315,802.59	Y=(-)66,590.95

NOTE: Coordinates On Pts. 1-4 Were Established By "Rayist Survey" Bearings And Distances Between Points Were Calculated Using The Lambert Grid (South Zone) System. The Route As Shown Ma Not N essarily Be The Exact Location Of The Pipeline.

Permit Dwg TA-N2-F823X-2500-1,1A,1B
TA-L2-F823X-2500-1,1A,1B,1C,1D,&2

NOTE: Line Was Laid in Accordance with Regulations of the Bureau of Land Management Permit as Issued.

LOCATION OF RIGHT-OF-WAY HAS BEEN ACCURATELY DELINEATED UPON THIS MAP
Kim A. Thibodeaux
KIM A. THIBODEAUX
LOUISIANA REGISTERED PROFESSIONAL CIVIL ENGINEER NO. 21407

STATE OF LOUISIANA — KIM A. THIBODEAUX — REG. No. 21407 — REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

TOTAL LENGT OF LINE = 1,609.27'

MATERIAL SUMMARY

ITEM NO.	DESCRIPTION
1.	16" O.D. x .500" W.T. Gr. X-52 Kaiser Pipe
2.	16" O.D. x .375" W.T. Gr. X-52 Kaiser Pipe
3.	Anodes 16" Bracelet Zinc
	COATING "A" ~ Concrete Coating To 128% Neg. Buoyancy (2 1/4" Thk.) Over Thin Film
	Coating "B" Concrete Coating To 130% Neg Buoyance (1 1/2" Thk.) Over Thin Film.

AS-CONSTRUCTED
SN 5748

MINERALS MANAGEMENT SERVICE — RECEIVED AUG 25 1986 — FIELD OPERATIONS — Gulf of Mexico OCS Region, New Orleans, La.

THIS DWG. CURRENT THRU: 1-21-81

C.O. NUMBER & DESCRIPTION	47516 ORIG. CONST.	47514 ORIG. CONST.
FIELD BOOKS — PRELIM.		
CONST.	13913	
FINAL		
LOG & TALLY NOTES	14254 13879 14 4, 13908 14002, 13974 14007 13910	

REFERENCE DRAWINGS

DRAWING NO.	TITLE
TO-F2-823X-2500-1A	Platform Details
TO-F2-823X-2500-1A1	Val. 2502 Plan Details
TO-F2-823X-2500-1A2	Val. 2502 Details
TO-F2-823X-240	Align. Ln. Nº 823X-2400
TO-F2-823X-2400-1A1	Valve Nº 2501 Details
TO-F2-823X-2400-1A	Valve Nº 2501 Material

Tennessee Gas Pipeline Company
Division of Tenneco Inc.
Engineering Department — Houston, Texas

DRAWN BY S.K.C.		DATE 1-21-81	
CHECKED BY RSM		DATE 11-2-81	
CORRECTED BY RSM		DATE 11-2-81	
APPROVED BY HMM		DATE 11-11-81	
		SCALE Shown	
ISSUE DATES	ORIGINAL	2-28-82	
	LAST	2-28-82	

TRANSCO-WEST CAMERON BLK. 498A LN.
LN. Nº 823X-2500
WEST CAMERON AREA, GULF OF MEXICO
VALVE SECTION— ENTIRE LINE ON THIS SHEET

APPROVED BY J.P. Hallowell — CHIEF ENGINEER — 11-20-81
TENNESSEE GAS PIPELINE CO.
TO-F2-823X-2500-1

In Reply Refer To: RP-2-2

APR 18 1986

Tenneco Inc.
Attention: Mr. R. S. Perot
Post Office Drawer 53388
Lafayette, Louisiana 70505

Gentlemen:

Please furnish proof of construction in accordance with 30 CFR 256.95 on the following pipeline rights-of-way:

OCS-G Number	Date of Permit
8047	7/25/85
7575	5/21/85
8050	7/26/85
8046	7/31/85
3640	12/16/77
4172	12/13/79
4291	5/06/80
4290	5/01/80

(Orig. Sgd.) A. Donald Giroir

Acting Regional Supervisor
Rules and Production

Enclosure

bcc: SEQ-1b (RP-2-2)

CWilliams:jj:4/14/86:PC Disk 2

SW 5748

OCS-G 4291

West Cameron Area,
South Addition

May 6, 1980

Tenneco Inc.

Right-of-Way

ACTION: APPLICATION APPROVED

Your application for a right-of-way 200 feet in width for the construction, maintenance, and operation of a 16-inch natural gas pipeline, 0.27 miles in length, from Transco Exploration Company's Platform "A" to a subsea tie-in with Tenneco Inc.'s proposed 30-inch pipeline (OCS-G 4171), all of which are located in Block 498, West Cameron Area, South Addition, dated February 15, 1980, with its attachments is hereby approved with the following additions and corrections:

1. Valve guards will be anchored in the following manner:

   a. Six (6) anchor pins will be installed deep enough so as to reach firm soil.

   b. Immediately following installation, the corners shall be sandbagged.

2. The ANSI 600 valves should not be subjected to a test-pressure differential greater than 1,440 psig.

3. The ANSI 600 valves, flanges, and fittings should not be subjected to a body test greater than 2,175 psig.

John L. Rankin
Manager

cc:
Geological Survey, USDI
Office of Pipeline Safety Operations, USDT

210/M.Holmes/dg/5-6-80

LANZA 3/19/80
SCHORETTS 3/20/80
Steinmiller 3/20/80
RD Melancon 3/24/80
For D. Solanas
Marsh 3-25-80

MAR 2 8 1980

In Reply Refer To: OS-5

Memorandum

To: Manager, Bureau of Land Management, 841 Hale Boggs Federal Building, 500 Camp Street, New Orleans, Louisiana 70130

From: Conservation Manager, Gulf of Mexico OCS Region

Subject: Tennessee Gas Pipeline Company's Pipeline Right-of-Way Application, BLM OCS-G 4291

We have reviewed the safety features and design specifications for the subject Right-of-Way Application, dated February 15, 1980, in accordance with the MOU dated August 1, 1974. It is for the construction, maintenance and operation of a 16-inch natural gas pipeline 1,439 feet in length from Transco's Platform "A", to a subsea tie-in with a proposed 30-inch Tennessee Gas Pipeline Company pipeline, all located in West Cameron Block 498, lease OCS-G 3520.

Based upon information submitted in the application, the design characteristics of this pipeline are calculated to be as follows:

Pipeline Component	Maximum Allowable Operating Pressure/WP Ratings
Submerged component	1,755 psig
Riser component	1,625 psig
Valves, flanges, fittings	1,440 psig

The hydrostatic pressure test with water will be at 2,160 psig for eight hours for the submerged component. The riser will be preinstallation-tested to a pressure of 2,160 psig for four hours. The ANSI 600 valves should not be subjected to a test-pressure differential greater than 1,440 psig. The ANSI 600 valves, flanges, and fittings should not be subjected to a body test greater than 2,175 psig.

Based on these calculations and a maximum allowable operating pressure (MAOP) of 1,440 psig of the receiving 30-inch Tennessee Gas Pipeline Company pipeline (BLM OCS-G 4171), we recommend that the MAOP for this pipeline be 1,440 psig, which is the hydrostatic test pressure divided by 1.5, and that this pressure may be exceeded only when hydrostatically pressure-testing the pipeline. We also recommend that valves and taps at the proposed subsea tie-in be provided with a minimum of three feet of cover, either through burial or with sandbags.

Our records indicate there are two proposed pipelines within 4,000 feet of the subject pipeline. We recommend that the applicant be advised of the presence of these lines so that they can be avoided in the planning and conduct of his operations.

It is the opinion of this office that the design and installation of the valve guards proposed for this pipeline are not in the best interest of the multiple-use concept of the OCS. We feel that installations of this type present an obstruction and that all valves on the OCS should be provided with a minimum of three feet of cover, either through burial or with sandbags.

The technical aspects of the proposed pipeline are acceptable in accordance with appropriate regulations and standards.

We would appreciate receiving a copy of the plat showing the location of the pipeline as installed.

[redacted]

for Lowell G. Hammons

cc: 1502-01 BLM OCS-G 4291 (w/orig appln) (OS-5)
CM Reading File
OMS-4 (w/cy of location plat)

RCLanza:GHSchonekas:nhn:3/19/80

United States Department of the Interior

GEOLOGICAL SURVEY
IMPERIAL OFFICE BLDG . 3301 N CAUSEWAY BLVD
P O BOX 7944
METAIRIE, LOUISIANA 70010

TEL (504) 837-4720

In Reply Refer To: OS-5

MAR 2 8 1980

Memorandum

To: Manager, Bureau of Land Management, 841 Hale Boggs Federal Building, 500 Camp Street, New Orleans, Louisiana 70130

From: Conservation Manager, Gulf of Mexico OCS Region

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The technical aspects of the proposed pipeline are acceptable in accordance with appropriate regulations and standards.

We would appreciate receiving a copy of the plat showing the location of the pipeline as installed.

for J. Courtney Reed
Lowell G. Hammons

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

NEW ORLEANS OUTER CONTINENTAL SHELF OFFICE

HALE BOGGS FEDERAL BUILDING

500 CAMP STREET—SUITE 841

NEW ORLEANS, LA 70130

IN REPLY REFER TO

OCS-G 4291

February 26, 1980

Memorandum

To: Conservation Manager
Gulf of Mexico OCS Operations

From: Manager
New Orleans OCS Office

Subject: Review of Pipeline Right-of-way Application

In accordance with the memorandum of understanding between the Bureau of Land Management and U. S. Geological Survey signed August 1, 1974, the subject application is enclosed.

Please review the technical aspects of the proposed pipeline. If you have any questions regarding this matter, please contact Mr. Autry J. Britton of this office.

John K. Chambers
Acting

Enclosures
1-Application dated February 15, 1980
2-Drawings No. TA-L2-F823X-2500-1, TA-L2-F823X-2500-1A, TA-L2-F823X-2500-1B, TA-L2-F823X-2500-1C, and TB-L2-F823X-2500-1D

NOTED—MC INTOSH

FEB 27 1980 NOTED—SCHONEKAS

Tennessee Gas Pipeline
Division of Tenneco Inc

P.O. Drawer 53388
Lafayette, Louisiana 70505
(318) 233-7802

TENNECO

FEB 15 1980

RECEIVED
FEB 20 3 52 PM '80
BUR OF LAND MGMT.
OUTER CONTINENTAL
SHELF OFFICE
NEW ORLEANS, LA.

Mr. John L. Rankin, Manager
Outer Continental Shelf Office
500 Camp Street, Suite 841
Hale Boggs Federal Building
New Orleans, LA 70130

Re: Application - Right of Way for 16" Natural Gas Pipeline in West Cameron Area, Gulf of Mexico (W. C. Blk. 498 Line)

Dear Mr. Rankin:

Pursuant to the authority granted in Section 5 (e) of the Outer Continental Shelf Lands Act (67 Stat.462) (43 U.S.C. 1331), as amended (92 Stat.629), and in compliance with the regulations contained in Title 43 CFR 3340, Tennessee Gas Pipeline Company, A Division of Tenneco Inc., is filing this application for a right of way 200 feet (200') in width for the purpose of constructing and maintaining a(n) sixteen (16") inch natural gas pipeline in the West Cameron Area, Gulf of Mexico. Tennessee Gas Pipeline Company agrees that said right of way, if approved, will be subject to the terms and conditions of said regulations.

This pipeline will be used to gather and transport natural gas from Transco's "A" platform in Block 498, West Cameron Area, in the Gulf of Mexico. The tentative construction date is June 1, 1980, and tentative completion date is July 30, 1980.

As set forth in the February 13, 1978, guidelines, the applicant agrees to furnish the following:

1. Letter of Application, in triplicate.

2. Certified and Return Receipts with copies of letter of notification to each lessee or right of way holder whose lease or right of way is affected by this application. Such lessees and right of way holders are identified on "Exhibit A" attached hereto.

3. Six (6) blue line prints of Drawing No. TA-L2-F823X-2500-1 , 1A, 1B & 1C , and TB-L2-F823X-2500-1D , showing the location, profile and route of the proposed pipeline, and Hi-Lo Censor locations.

4. Two (2) blue line prints of Drawing No. TA-L2-F823X-2500-2 showing the leases and pipeline rights of way.

5. Bury all pipelines to a minimum of 3 ft. of cover up to the 200 ft. contour.

6. Bury all sub-sea valves to a minimum of 1 ft. of cover regardless of water depth.

7. A hazard survey report of the proposed right of way route is attached in duplicate.

8. An archaeological survey report as stipulated in requirements is attached in duplicate.

9. In accordance with the guidelines, an As-Built map, along with diving inspection reports, will be provided within 90 days after completion of the pipeline.

10. Safety devices will be provided as set forth on attached Schematic Drawing No. TA-L2-F823X-2500-1B .

11. Proper notification prior to construction and hydrostatic testing will be adhered to.

12. Any pipeline crossings will be in compliance with the guidelines as set forth.

13. Any breaks, leak failures or accidents will be reported as required.

In addition to the above information, applicant submits the following information:

1. Water depth along route of proposed pipeline and pipeline in relationship to natural bottom as set forth on attached Drawing No. TA-L2-F823X-2500-1A .

2. The description of the pipe and coating is as follows:

   a. Line Pipe

   16" O.D. x .375" W.T. Gr. X-52 ; Weight Bare - 62.6 #/ft. coated with 22 mils of heat cured epoxy or coal tar enamel 6/32" thick, and weighted with a continuous coat of 140# density concrete 2½" thick, giving a specific gravity of 1.35 in salt water (64.0#/cu. ft.)

   b. Riser Pipe

   16" O.D. x .500" W.T. Gr. X-52 ; Weight Bare - 82.8 #/ft. coated with 22 mils of heat cured epoxy or coal tar enamel 6/32" thick, and weighted with a continuous coat of 140# density concrete 2" thick, giving a specific gravity of 1.40 in salt water (64.0#/cu. ft.)

   c. Internal Coating

   The analysis of the transported products will be monitored and preventive measures such as pigging and/or inhibiting will be employed as necessary.

3. Valves and Flanges

   a. Below water valves and flanges will be A.N.S.I. 900 series with a rated working pressure of 2,160# P.S.I.

   b. Above water valves and flanges will be A.N.S.I. 600 series with a rated working pressure of 1,440# P.S.I.

4. The specific gravity of the product being transported is anticipated to be .60 (Air = 1.0), T = 60°F.

5. Weight, type and spacing of anodes to be used as corrosion protection are shown on attached Drawing No. TA-L2-F823X-2500-1B entitled "Schematic". The life expectancy of the proposed pipeline is indefinite. The sacrificial anodes are designed for 40 year life and are to be replaced as necessary to extend life of pipeline.

6. The design of the proposed pipeline is in accordance with the "Minimum Federal Safety Standards (Department of Transportation) Title 49, CFR, Part 192".

7. Maximum Allowable Operating Pressure (M.A.O.P.) = 1,440# P.S.I.G.

Maximum Capacity = 92.7 MMCF/D

Maximum Operating Pressure (M.O.P.) is less than or equal to 1,440# P.S.I.G.

Minimum Operating Pressure = 500# P.S.I.G.

A. Calculations

Formulas:

$$P = \frac{2st}{d}$$

$$M.A.O.P. = \frac{2st\,(F)(E)(T)}{d}$$

Whereas: P = 100% S.M.Y.S.
s = Specified Minimum Yield Strength
t = Nominal Wall Thickness in Inches
d = Nominal Outside Diameter in Inches
(F) = 0.50 for Riser Pipe
= 0.72 for Line Pipe
As per Title 49, CFR, Part 192.619
(E) = 1 - for seamless and DSA welded pipe
(T) = 1 - for temperature less than 250°F

a. Riser Pipe

16" O.D. x .500" W.T. Gr. X-52

$$P = \frac{2 \times .500" \times 52{,}000}{16"} = 3{,}250\#\ P.S.I.G.$$

(1) M.A.O.P. (Design)

$$M.A.O.P. = \frac{2 \times .500" \times 52{,}000 \times .50 \times 1 \times 1}{16"} = 1{,}625\#P.S.I.G$$

(2) M.A.O.P. (Hydrostatic Test Pressure)

H.T.P. = P x 95%
= 3,250 x .95 = 3,088# P.S.I.G.
H.T.P. will be 2,160# P.S.I.G. for 4 hrs.
M.A.O.P. = $\frac{2,160}{1.5}$ = 1,440# P.S.I.G.

(3) M.A.O.P. = 1,625# P.S.I.G. (Design) or
1,440# P.S.I.G. (H.T.P.)

NOTE: Riser will be Pre-Tested.

b. Line Pipe

16" O.D. x .375" W.T. Gr. X-52

P = $\frac{2 \times .375" \times 52,000}{16"}$ = 2,437# P.S.I.G.

(1) M.A.O.P. (Design)

M.A.O.P. = $\frac{2 \times .375" \times 52,000 \times .72 \times 1 \times 1}{16"}$ = 1,755#P.S.I.G

(2) M.A.O.P. (Hydrostatic Test Pressure)

H.T.P. = P x 95%
= 2,437 x .95 = 2,315# P.S.I.G.
H.T.P. will be 2,160# P.S.I.G. for 8 hrs.
M.A.O.P. = $\frac{2,160}{1.25}$ = 1,728# P.S.I.G.

(3) M.A.O.P. = 1,755# P.S.I.G. (Design) or
1,728# P.S.I.G. (H.T.P.)

Since there are A.N.S.I. 600 series valves in the system, the M.A.O.P. therefore, is restricted to 1,440# P.S.I.G.

8. The producers equipment will be designed for 1,440# P.S.I.G.

9. The 30" line that the proposed line will tie into is 30" O.D. x .625" W.T. Gr. X-52 pipe.

   The riser is (Not Applicable) pipe.

10. Originally signed copy of Non-Discrimination in Employment Stipulations is enclosed in duplicate.

11. Company contact:

    Mr. Reno G. Robertson
    Division Civil Engineer
    P. O. Drawer 53388, OCS
    Lafayette, Louisiana 70505
    318/233-7802

12. Tennessee Gas Pipeline Company's Draft No. 28059 in the amount of $115.00 of which $100.00 covers the application fee and $15.00 covers the first year's rental on 0.273 miles of right of way is also enclosed.

This application (and any amendments made hereto) is made with our full knowledge and concurrence with the OCS Lands Act (43 U.S.C. 1331 et seq.), as amended, (P.L. 95-372), including the following: Sec. 5(e) addressing pipeline rights-of-way, Requirements of the Federal Energy Regulatory Commission notice of hearing, transportation and purchase of oil and gas without discrimination; Sec. 5(f)(1) addressing operation of pipelines in accordance with competitive principles, including open and nondiscriminatory access to both owner and non-owner shippers; Sec. 5(f)(2) which may allow exemption of the requirements in Sec. 5(f)(1); and Sec. 21(b), addressing the assuring of maximum environmental protection, including the safest practices for pipeline burial.

Additionally, we expressly agree that if any site, structure, or object of historical or archaeological significance should be discovered during the conduct of any operations within the permitted right of way, we shall report immediately such findings to the Manager, New Orleans OCS Office, and make every reasonable effort to preserve and protect the cultural resource from damage until the Manager, New Orleans OCS Office, has given directions as to its preservation.

Tennessee Gas Pipeline

Mr. John L. Rankin, Manager
Page Seven

Please refer to your miscellaneous 014 file for a copy of a resolution approved by the Board of Directors authorizing the undersigned as Supervisor - Rights of Way of Tennessee Gas Pipeline Company, a Division of Tenneco Inc., to sign for and on behalf of the Company.

We trust the above information will enable you to expedite the issuance of the Decision approving said right of way.

Yours very truly,

TENNESSEE GAS PIPELINE COMPANY
A DIVISION OF TENNECO INC.

F. J. Millette, Supervisor
Rights of Way as
Agent and Attorney-in-Fact

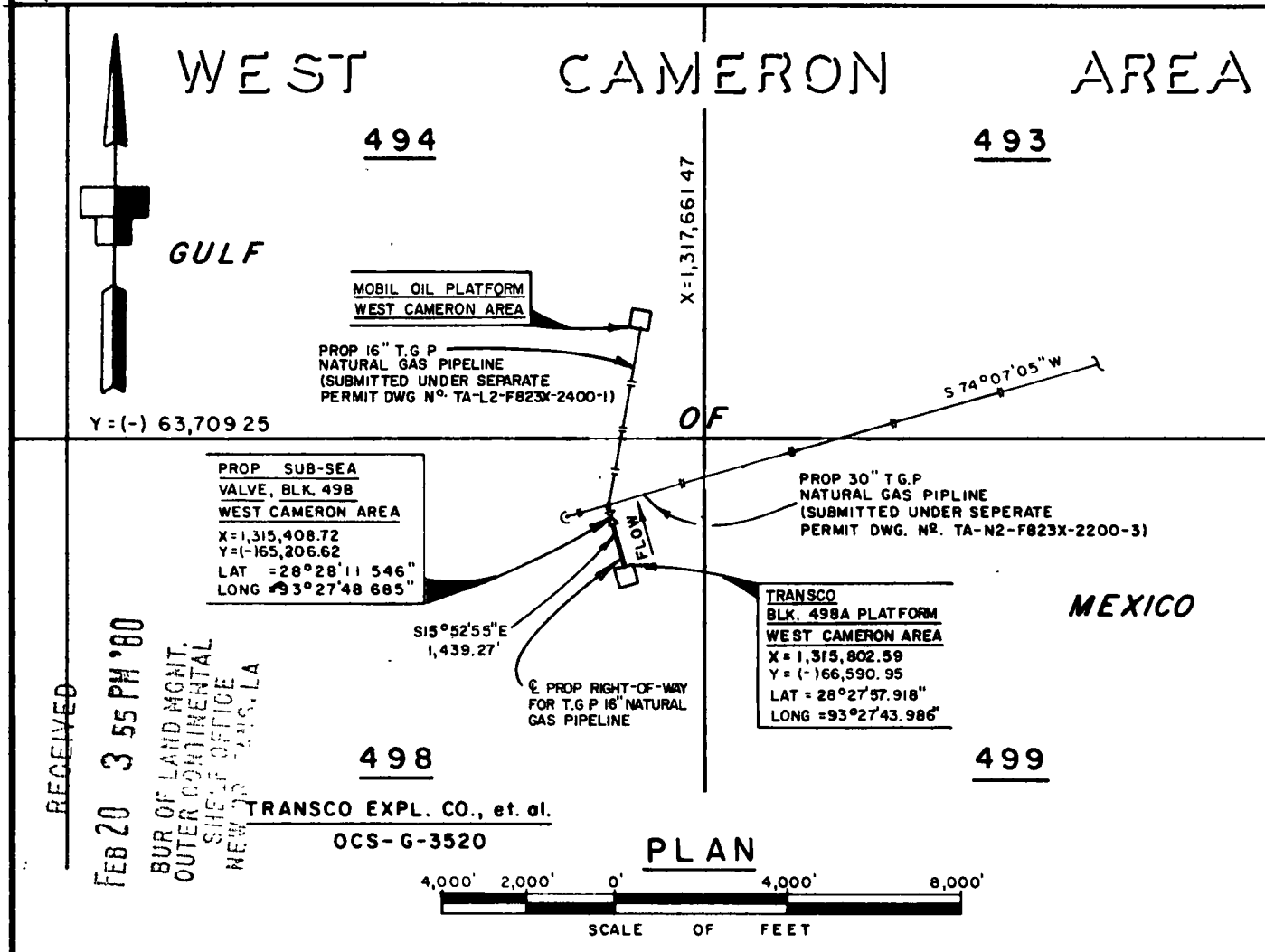
FJM/jsb

Certified Mail - Return Receipt # 9449460

"E X H I B I T A"

On this date, February 1, 1980, the following Lessee(s) and right of way holder(s) were notified by Registered Mail, Return Receipt Requested:

1.	Transco Exploration Company	OCS-G 3520
2.	Energy Development Corporation	OCS-G 3520
3.	The Superior Oil Company	OCS-G 3520
4.	Freeport Oil Company	OCS-G 3520
5.	Pioneer Production Corporation	OCS-G 3520
6.	The Continental Group, Inc.	OCS-G 3520
7.	Apache Corporation	OCS-G 3520



NOTES:

THIS PIPELINE TO BE USED TO TRANSPORT NATURAL GAS FROM OFFSHORE TO EXISTING FACILITIES ON SHORE LOUISIANA.

ALL BEARINGS SHOWN ARE LAMBERT.

PROPOSED WIDTH OF RIGHT-OF-WAY 200'.

TOTAL LENGTH OF PIPELINE 1,439.27' = 0.273 MILES.

LOCATION OF RIGHT-OF-WAY HAS BEEN ACCURATELY DELINEATED UPON THIS MAP AND DESIGN COMPLIES WITH D.O.T. REGULATIONS.

LARRY JAMES BROUSSARD
REG. No. 14589
REGISTERED PROFESSIONAL ENGINEER

LARRY JAMES BROUSSARD
LOUISIANA REGISTERED PROFESSIONAL
CIVIL ENGINEER NO. 14589

NO.	DATE	REVISION	REV.	CKD	APR

DRAWING NO.	TITLE
TB L2 F823X 2500-ID	VALVE GUARD DETAIL
TA-L2-F823X-2500-IC	PIPELINE CROSSING DETAIL
TA-L2-F823X-2500-IB	SCHEMATIC
TA-L2-F823X-2500-IA	PROFILE

REFERENCE DRAWINGS

DRAWN BY L R P	DATE 12 2 80
CHECKED BY C J B	DATE "
CORRECT BY	DATE
APPROVED BY	DATE
SCALE SHOWN	C O.

TENNECO

Tennessee Gas Pipeline Company
Division of Tenneco Inc
Engineering Department Houston, Texas

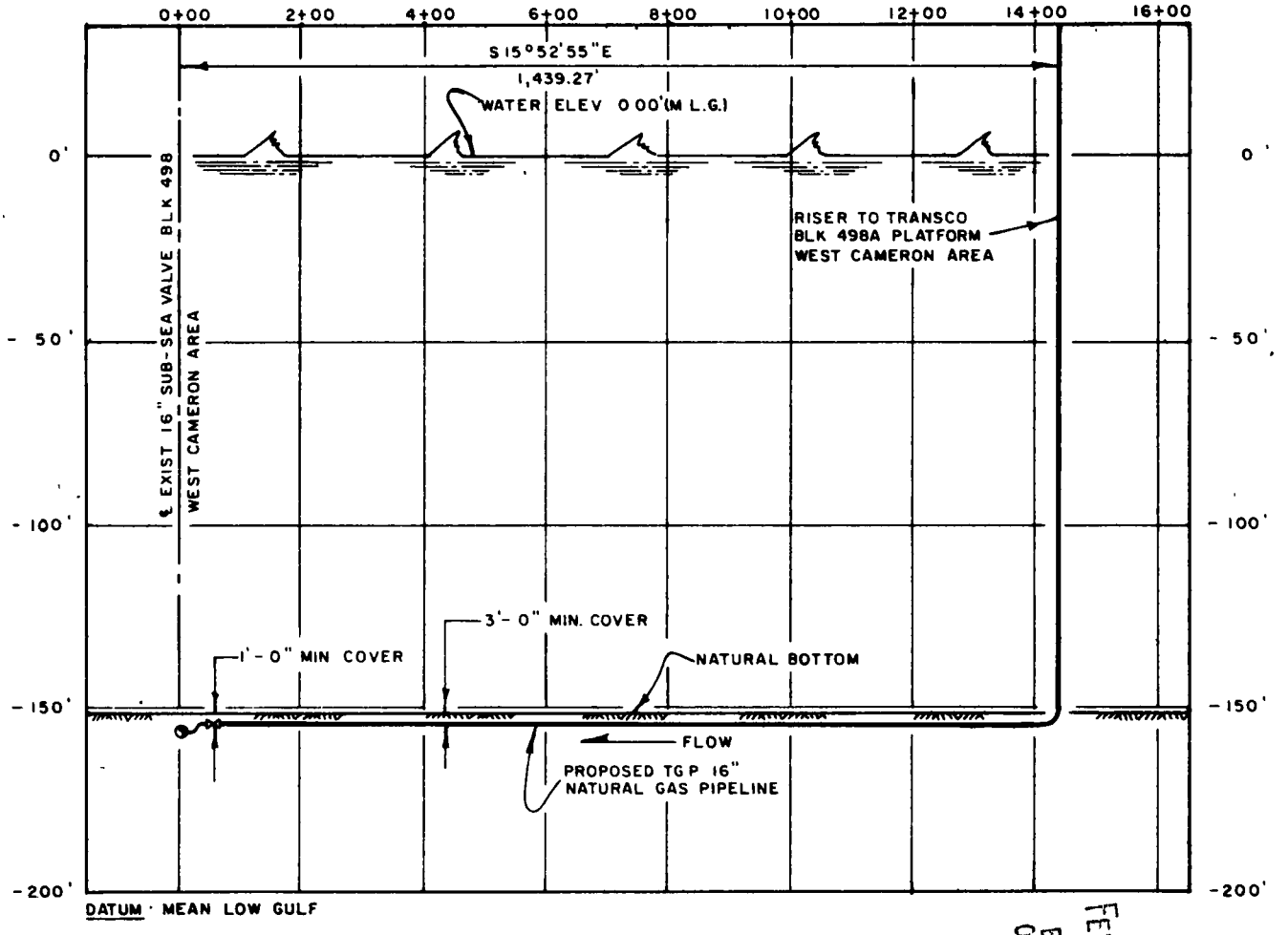
APPROVED BY
FOR CHIEF ENGINEER

APPLICATION PLAT FOR PROPOSED NATURAL GAS PIPELINE RIGHT-OF-WAY

Tennessee Gas Pipeline Co.

TA-L2-F823X-2500-1

OCS-G 4291



PROFILE

50' 25' 0' 50'
VERTICAL SCALE OF FEET

300' 150' 0' 300'
HORIZONTAL SCALE OF FEET

DRAWING NO.	TITLE
TB-L2-F823X-2500-ID	VALVE GUARD DETAIL
TA-L2-F823X-2500-IC	PIPELINE CROSSING DETAIL
TA-L2-F823X-2500-IB	SCHEMATIC
TA-L2-F823X-2500-I	PLAN

NO.	DATE	REVISION	REV.	CKD	APR

REFERENCE DRAWINGS

DRAWN BY L R P	DATE 1 22 80
CHECKED BY C J B	DATE "
CORRECT BY	DATE
APPROVED BY	DATE
SCALE SHOWN	C O

Tennessee Gas Pipeline Company
Division of Tenneco Inc
Engineering Department Houston, Texas

APPROVED BY
FOR CHIEF ENGINEER

APPLICATION PLAT FOR PROPOSED NATURAL GAS PIPELINE RIGHT-OF-WAY

Tennessee Gas Pipeline Co.

TA-L2-F823X-2500-IA

WEST CAMERON BLK 498A LN.

UNDER WATER TIE - IN
WEST CAMERON AREA
BLK. 498

PROPOSED T.G.P. 30" NATURAL GAS PIPELINE
(LINE Nº 823X-2200)
30.000" O.D. x .625" W.T. GR. X-52
(FILED UNDER SEPARATE PERMIT DWG Nº
TS-L2-F823X-2200-1 & TA-L2-F823X-2200-3 ,
OCS-G-4174)

FLOW

900# ANSI BLOCK VALVE

900# ANSI CHECK VALVE

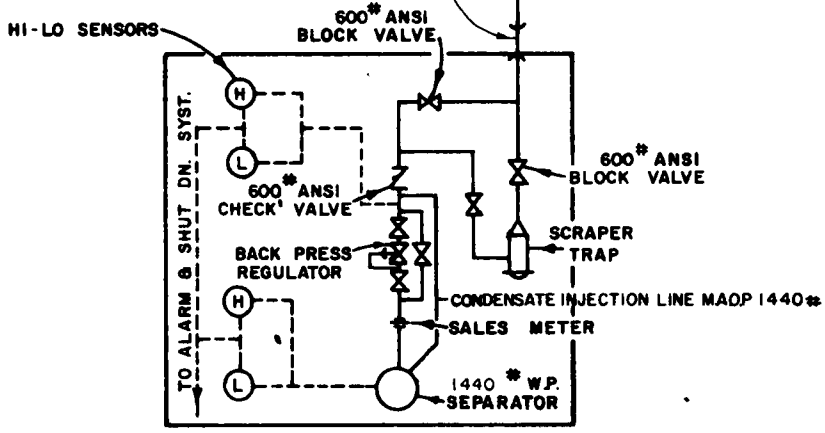
NOTE:
THE DESIGN CHARACTERISTICS OF THE PIPELINE ARE IN COMPLIANCE WITH D.O.T. REGULATIONS.

1,439 27 FT. 16" O.D. x 375" W.T GR. X-52 PIPE
4 SACRIFICIAL ZINC ANODES, 219 # EA
500 FT SEPERATION - CENTER TO CENTER

FLOW

16" O D x 500" W.T GR. X-52
RISER PIPE

TRANSCO
WEST CAMERON AREA
BLK. 498A



NO.	DATE	REVISION	REV.	CKD	APR	REFERENCE DRAWINGS	
						DRAWING NO.	TITLE
						TA-L2-F823X-2500-1C TA-L2-F823X-2500-1A TA-L2-F823X-2500-1	PIPELINE CROSSING DETAIL PROFILE PLAN

DRAWN BY S G W	DATE 1-23-80
CHECKED BY C J B	DATE 1-23-80
CORRECT BY	DATE
APPROVED BY	DATE
SCALE NONE	C. O.

Tennessee Gas Pipeline Company
Division of Tenneco Inc
Engineering Department Houston, Texas

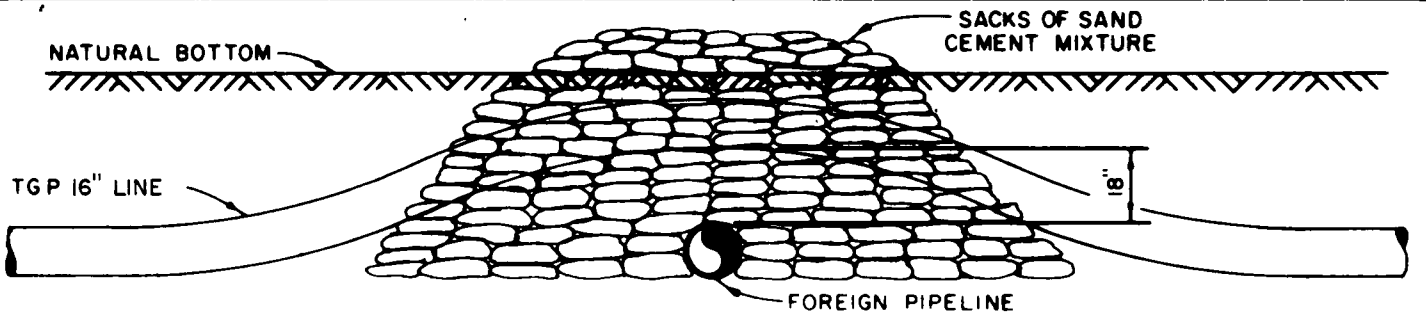
APPROVED BY
FOR CHIEF ENGINEER

SCHEMATIC
PROPOSED T.G.P. 16" WEST CAMERON BLK. 498A LINE
WEST CAMERON AREA - GULF OF MEXICO

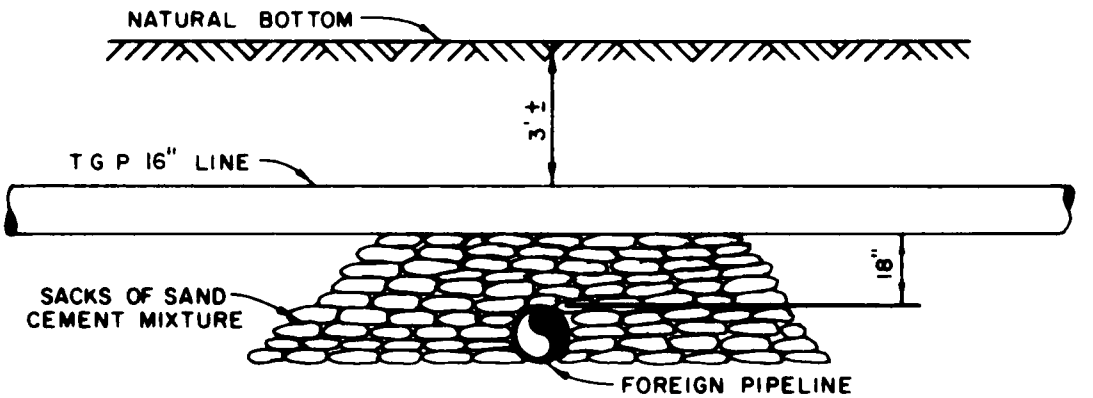
Tennessee Gas Pipeline Co.

TA-L2-F823X-2500-1B

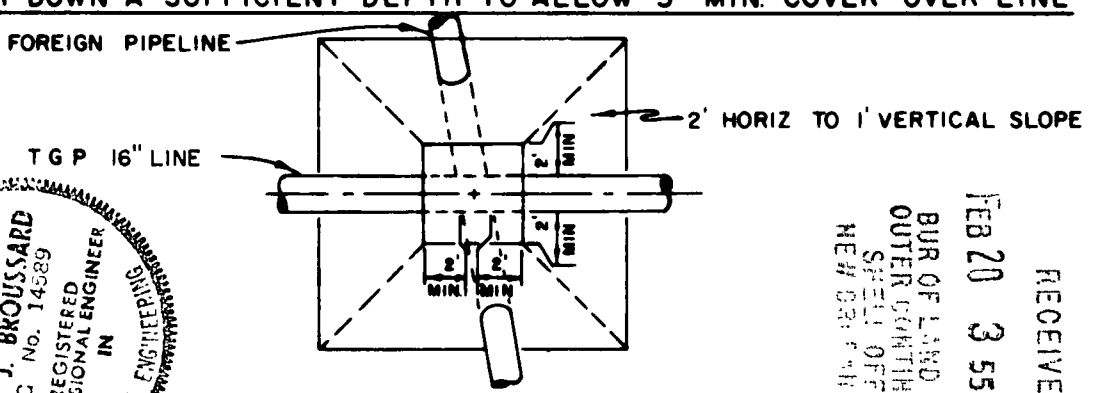
WEST CAMERON BLK. 498A LN.



CROSSING METHOD USED WHEN FOREIGN PIPELINE CAN NOT BE JETTED DOWN AND IS TOO SHALLOW TO ALLOW 3' MIN COVER OVER LINE



CROSSING METHOD USED WHEN FOREIGN PIPELINE CAN BE JETTED DOWN OR IS ALREADY DOWN A SUFFICIENT DEPTH TO ALLOW 3' MIN. COVER OVER LINE



PLAN

LARRY J. BROUSSARD REG. No. 14589 REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

RECEIVED FEB 20 3 55 PM '80 BUR OF LAND MGMT. OUTER CONTINENTAL SHELF OFFICE NEW ORLEANS, LA.

NO	DATE	REVISION	REV	CKD	APR	REFERENCE DRAWINGS	
						TA-L2-F823X-2500-1B TA-L2-F823X-2500-1A TA-L2-F823X-2500-1	SCHEMATIC PROFILE PLAN
						DRAWING NO.	TITLE

DRAWN BY SGW	DATE 1-23-80
CHECKED BY CJB	DATE "
CORRECT BY	DATE
APPROVED BY	DATE
SCALE NONE	C O

Tennessee Gas Pipeline Company
Division of Tenneco Inc.
Engineering Department — Houston, Texas

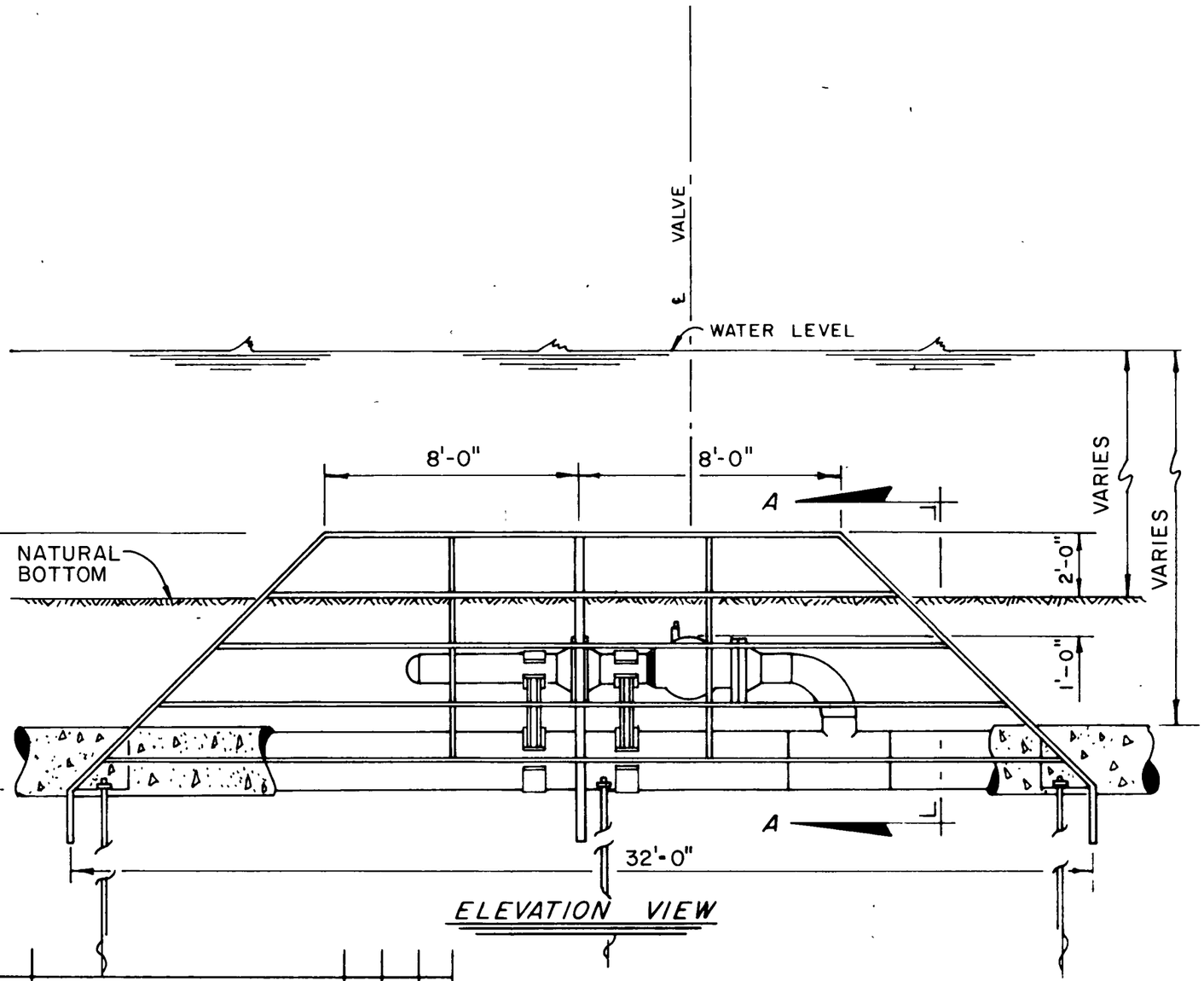
APPROVED BY D J Broussard FOR CHIEF ENGINEER

PROPOSED 16" NATURAL GAS PIPELINE
TYPICAL PIPELINE CROSSING
SEPARATION DETAIL
WEST CAMERON AREA, GULF OF MEXICO

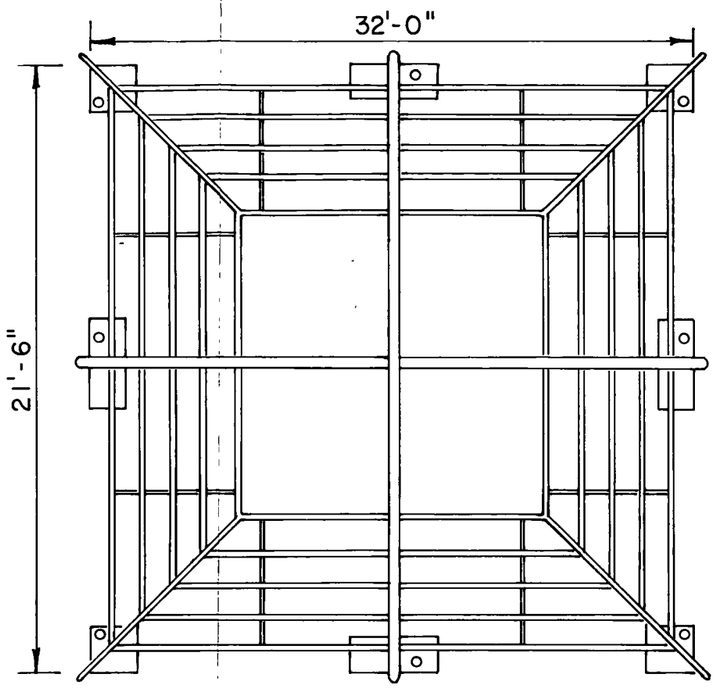
Tennessee Gas Pipeline Co.

TA-L2-F823X-2500-1C

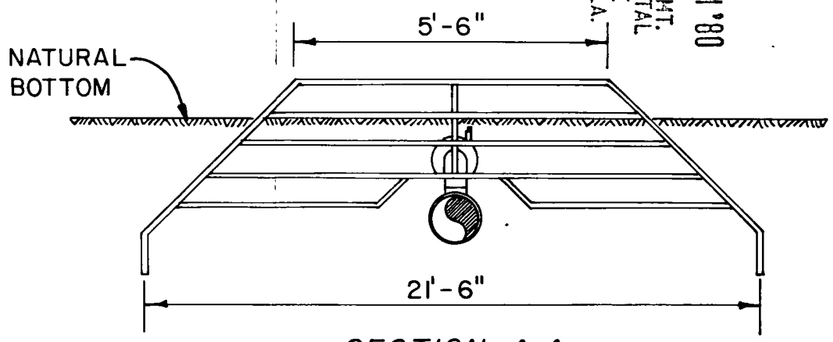
WEST CAMERON BLK. 498A LN.



ELEVATION VIEW



PLAN



SECTION A-A

NO	DATE	REVISION	REV BY	CKD BY	APR. BY

REFERENCE DRAWINGS	
DRAWING NO	TITLE

Tennessee Gas Pipeline Company

Engineering Department — Houston, Texas

DRAWN BY	DATE
CHECKED BY	DATE
CORRECT BY	DATE
APPROVED BY	DATE
SCALE NONE	C O

TYPICAL VALVE GUARD & INSTALLATION ON PROPOSED SUB-SEA VALVES

APPROVED BY
FOR ASST CHIEF ENGINEER
Tennessee Gas Pipeline Co

TB-L2-F823X-2500-ID

4291

Revised 1/15/80

PIPELINE APPLICATION CHECK LIST

INSTRUCTIONS: Check the blank on the left if the statement is affirmative or correct data submitted. Make N/A (not applicable) where appropriate. Place an X in the blank if the answer is no or if the data was not submitted. All blanks marked X must be rectified to a check (or qualified) before approval can be given for the pipeline. Enter data in the blanks furnished.

A. Verify the following general information:

I. SOP

✓ a. Do the leases involved on the P/L application appear on the current Suspension of Production (SOP) Lease List?

II. POD

✓ a. Is the pipeline presently covered by an approved Plan of Development (POD)?

III. Lease Stipulation Yes _____ No ✓
If yes, does lease require an archaeological survey? Yes _____
No _____

IV. USGS Application

___ a. The applicant is a Federal lease holder and the pipeline is to be used for such purposes as:

___ 1. Moving production to a control point for gathering, treating, storing, or measuring.

___ 2. Delivery of production to a point of sale.

___ 3. Delivery of production to a pipeline operated by a transportation company.

___ 4. Moving fluids in connection with lease operations, such as for injection purposes.

___ b. The pipeline is within the lease boundary owned by the operator.

___ c. Pipeline is within contiguous lease boundaries.

___ d. Pipeline is within noncontiguous lease boundaries. (Note: Items b, c, and d all fall under 30 CFR 250.18)

___ e. Lessee's "intent to cross" letters are received. (Wait 30 days for letters of objection. Only objections concerning interference with lease operations will be considered.)

___ f. Pursuant to Secretarial Order 2974 of April 30, 1975, check the following:

____ ~~1. FWS notified~~ _____.

____ 2. FWS comment received _____.

____ 3. BLM notified _____.

____ 4. BLM comment received _____.

____ 5. Environmental Impact Evaluations completed _____.

____ ~~6. If related to new POD/P, date of POD/P approval~~ _____.

V. BLM Application

✓ a. The pipeline must not be a gathering line.

VI. DOT Pipelines

✓ a. The pipelines are shoreward of the outlet flange at the last process facility (If yes, include 49 CFR 192 for gas P/L or 49 CFR 195 for oil P/L in approval.)

VII. DOI Pipelines

N/A a. Pipelines not covered by VI above.

B. Verify that the information shown on the safety equipment schematic drawing contains the following:

✓ I. The pipeline leaving the platform receiving production from the platform is equipped with high- and low-pressure sensors to directly or indirectly shut-in the well or wells on the platform.

N/A II. The pipeline delivering production to production facilities on the platform is equipped with automatic fail close valve tied into the automatic and remote shut-in system.

N/A III. The pipeline crossing the production platform which does not deliver production to the platform, but which may or may not receive production from the platform, is equipped with high- and low-pressure sensors connected to an automatic fail close valve located in the upstream portion of the pipeline at the platform. In addition, the sensors are tied into either the platform's automatic and remote shut-in system or an independent remote shut-in system.

@ SUBSEA TIE-IN

___ IV. The pipeline ~~boarding the platform~~ is equipped with a check valve.

✓ V. The pipeline leaving the platform is equipped with a check valve.

N/A VI. The pipeline pump is shown as well as its associated high- and low-pressure shut-in device.

N/A VII. If pipeline pilots are located on any pressure vessel or downstream of a departing check valve, all flow restriction(s), (backpressure valve(s), chokes), downstream of the process vessel, or wellhead, and upstream if check valve(s) must be indicated on the schematic.

If flow restriction(s) exist downstream of any process vessel a a low pressure sensor must be installed between the flow restriction(s) and the departing check valve(s). High-pressure sensor(s) must be installed downstream of the wellhead choke.

Reference API RP 14C, Pages 23 and 59

✓ VIII. Pressure source is drawn into the schematic with the following:

✓ a. Source SEPARATOR.

✓ b. Maximum source pressure, psig 1440.

✓ IX. The rated working pressures of all separators, pumps, compressors, valves, flanges, and fittings upstream of and including the boarding automatic fail close valve are shown.

ANSI 600

C. Verify that the location plat depicts the following:

✓ I. Location of pipeline

✓ II. Length of pipeline

✓ III. Size of pipeline

✓ IV. Type of service

✓ V. Direction of flow

✓ VI. X-Y coordinates of key ponts

D. Verify that the information given on the submitted data sheet is completed; and calculate the $MAOP_{sc}$, $MAOP_{rc}$, $MAOP_{p/l}$.

I. General information for calculating $MAOP_{sc}$, $MAOP_{rc}$, etc.

a. Size of pipeline, inches 16.

b. Weight of pipeline, lbs./ft. 62.6

c. Grade of pipeline X 52

d. Wall thickness, inches 0.375

e. Size of riser, inches 16.

f. Weight of riser, lbs./ft. 82.8

g. Grade of riser X-52

h. Wall thickness of riser, inches 0.50

i. Minimum WP rating of piping, fittings, valves, psig 1440

	LINE	*RISER
j. Hydrostatic test pressure (HTP), psig	2160	2160
k. Hold time, hrs.	8	4

l. Classification of pipeline (oil or gas) GAS

m. Type of pipe (ASTM A-106, API-5L, etc.)
NOTE: If ASTM A-53 Reference API RP 14E, Section 2.1.a(2)

* RISER IS PRE-TESTED.

II. DOI Pipelines

a. IP @ SMYS for submerged pipeline = $\frac{2st}{D}$ = _____

b. (.72 x IP @ SMYS) for submerged pipeline = _____ ($MAOP_{sc}$)

c. IP @ SMYS for riser = $\frac{2st}{D}$ = _____

d. (.60 x IP @ SMYS) for riser = _____ ($MAOP_{rc}$)

e. See Ii above ($MAOP_{pfv}$) = _____ ($MAOP_{pfv}$)

_____f. Is 1.25 MSP $\leq$ HTP $\leq$ .95 (IP @ SMYS for smaller IP of a and c above)

_____ $\leq$ _____ $\leq$ _____

_____g. HTP/1.25 = _____

_____h. Is HTP hold time $\geq$ 2 hours

_____i. MAOP of receiving pipeline from IV _____.

_____j. $MAOP_{p/1}$ = the smallest of b, d, e, g, and i above

_____ ($MAOP_{p/1}$)

_____k. Test pressure ANSI & API carbon steel RTJ & RF Flanges and Valves

_____ (From Table 3.1, Page 31 API RP 14E)

_____l. Is K > HTP

NOTE: If note, add statement in approval letter to insure valves and flanges are note subjected to test pressure.

_____m. Is j $\geq$ MSP

_____ $\geq$ _____

If not, one of the following is necessary:

_____ 1. Redundant safety equipment is afforded.

_____ 2. A departure from the requirement for redundant safety equipment

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III. DOT Pipelines

a. IP @ SMYS for submerged pipeline = $\frac{2st}{D}$ = 2437

b. (.72 x IP @ SMYS) for submerged pipeline = 1755 ($MAOP_{sc}$)

c. IP @ SMYS for riser = $\frac{2st}{D}$ = 3250

d. ~~For oil P/L (.60 x IP @ SMYS) for riser =~~ N/A ($MAOP_{rc}$)

For gas P/L (.50 x IP @ SMYS) for riser = 1625

e. See Ii above 1440 ($MAOP_{pfv}$)

f. Limit of Testing

N/A 1. For oil P/L

Is 1.25 MSP ≤ HTP ≤ .95 (IP @ SMYS for smaller IP of a and c above)

____ ≤ ____ ≤ ____

✓ 2. For gas P/L riser component:

Is 1.50 MSP = HTP of riser = .95 (IP @ SMYS of c above)

2160 ≤ 2160 ≤ 3087

✓ 3. For gas P/L submerged component:

Is 1.25 MSP = HTP of submerged component = .95 (IP @ SMYS of a above

1800 ≤ 2160 ≤ 2315

g. $MAOP_{p/l}$ based on HTP

~~1. For oil P/L HTP 1.25 =~~ N/A

2. For gas P/L riser component HTP/1.5 = 1440 of riser

3. For gas P/L submerged component HTP/1.25 = 1728 of submerged component

h. ~~For oil P/L~~ ~~Is HTP hold time ≥ 24 hours~~

For gas P/L Is HTP hold time ≥ 8 hours

i. MAOP of receiving pipeline from IV 1440

j. $MAOP_{p/l}$ = the smallest of b, d, e, g, and i above

1440 ($MAOP_{p/l}$)

k. Test pressure ANSI & API carbon steel RTJ & RF flanges and valves

2175 (From table 3.1, page 31 API RP 14E)

l. Is k > HTP

NOTE: If not, add statement in approval letter to insure valves and flanges are not subjected to test pressure.

m. Is j ≥ MSP

1440 ≥ 1440

If not, one of the following is necessary:

____ 1. Redundant safety equipment is afforded

____ 2. A departure from the requirement for redundant safety equipment.

BLM OCS-G 4171

IV. Pipeline Receiving Production (Installed Prior to July 31, 1977)

		Submerged Component	Riser
a.	Size, inches	30	
b.	Grade		
c.	Wall thickness, inches		
d.	Minimum working pressure of valves and flanges	(MAOPpfv)	
e.	Date of last hydrostatic test		
f.	HTP, psig		
g.	Hold time, hrs.		
h.	MAOP based on HTP HTP/1.25		
i.	IP@SMYS for submerged P/L 2ST/D		
j.	(.72 x IP@SMYS) for submerged P/L	(MAOPsc)	
k.	IP@SMYS for riser 2ST/D		
l.	(.60 x IP@SMYS) for riser	(MAOPrc)	

m. If the receiving P/L is a DOT gas P/L and has not been tested since July 1, 1971, then what is the HAOP to which the segment was subjected during the 5 years prior to July 1, 1976? _____

n. MAOP of receiving P/L ≥ MAOP of proposed P/L ≥ MSP of proposed P/L

1440 ≥ 1440 ≥ 1440

*HAOP - Highest actual operating pressure

E. Verify that the information was given on the submitted data sheet is complete; and calculate the life expectancy of the pipelines corrosion protection ($LE_{p/l}$)

I. General Information for Calculating $LE_{p/l}$

✓ a. Type of corrosion protection (platform anodes, P/L anodes, or rectifier

___ b. If pipeline anodes are used:

1. Type of anode ZINC.
2. Spacing interval, ft. 500
3. Weight of unit anode, lbs. 219.

II. Calculate Life Expectancy of Corrosion Protection

N/A a. If platform anodes are used, annual pipe-to-electrolyte potential measurements are required.

___ b. If pipeline anodes are used:

$LE_{p/l} = 3.82 \times 10^4 \times W^o/DIR? =$ 40 yrs.

W^o = weight of one anode, pounds =

D = outside diameter of pipe, inches

I = interval = length of pipe, feet ÷ total number of anodes

R = comsumption rate, lbs./amp-yr.

✓ c. Is our calculated $LE_{p/l} \geq 20$ years.

If not, one of the following is necessary:

✓ 1. The company agrees to increase their cathodic protection to meet the 20-year requirement.

✓ 2. Annual pipe-to-electrolyte potential measurements will be required.

F. Verify that the information given on the submitted data sheet is complete; and calculate the specific gravity on the pipeline ($SP_{p/1}$)

I. General Information pertaining to $SG_{p/1}$

a. Description of pipelines protective coating 22 mils epoxy or 6/32 enamel.

b. Description of risers protective coating "

c. Description of pre-concrete coating "

d. Density of concrete, lbs./cu. ft. 140

e. Thickness of concrete, inches 2 1/2

f. Thickness of asphalt/somastic 6/32

g. Gravity or density of products:

For gas 0.60 (air = 1.0)

For oil/condensate ____ ° API; ____ (water = 1.0)

h. Given $SG_{p/1}$ 1.35

II. $SG_{p/1}$

N/A a. Expoxy-coated pipelines:

$SG_{p/1} = 2.865\ W/D^2$

W = weight of bare pipe, lbs./ft.

D = diameter of pipe, inches

✓ b. For weighted pipelines:

$$SG_{p/1} = \frac{dc}{d} + \left[\frac{k_2}{(T-k_1)^2}\left(\frac{W+P}{k_3} - \frac{dc}{d}\right)\right]$$

dc = density of concrete, lbs./ft/^{3}

d = density of fluid in which pipeline is submerged, lbs./ft.^{3}

k_1, k_2, k_3 = coefficients from tables

T = thickness of concrete coating, inches

W = weight of bare pipe, lbs./ft.

P = weight of double enamel coat and felt wrap, or weight of asphaltmastic coating, lbs./ft.

$SG_{p/1}$ = 1.35

✓ c. Is our calculated SG = operator's given SG

1.35 = 1.35

NOTE: These values should be approximately the same. If not, resolve. If the SG is close to a value of 1, the pipeline is unacceptable and must be weighted with concrete or anchored securely to the bottom.

G. Verify the following general information:

I. Water Depth, ft. 150 (Max) _____ (Min)

II. Burial Depth, ft. 3

III. Maximum Operating Pressure (MOP) < to 1440

IV. Capacity 92.7 MMCF/D

V. No. of lines: Existing 0 Proposed 2